



**ITU-D Regional Development Forums 2010 for the  
Africa region on  
“Modern spectrum Management and Transition from  
Analogue to Digital Broadcasting – Trends and  
Technologies”**

**Switchover from Analogue to Digital Terrestrial  
Television Broadcasting**

Digital Switchover Strategy (Hungary)

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# What is the basic task ?

- Switch-off of analogue terrestrial television programming



Analogue terrestrial reception mode changes to another one till ASO. The digital television service is going to be available for everybody

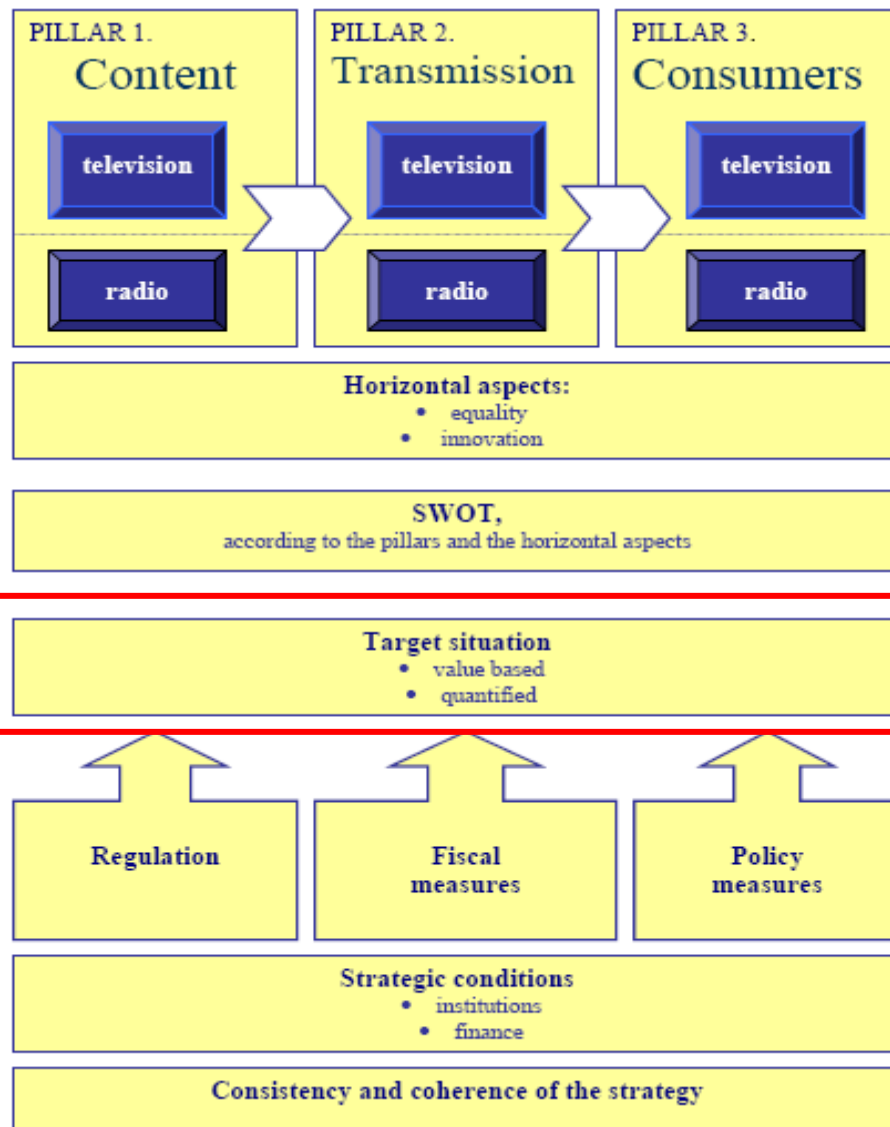
- What is the extra task ?
  - Mobile TV
  - Digital Dividend

# Digital Switchover Strategy

Digitalizing television and radio programming is a complicated process with far-reaching economic and social consequences equally affecting residential, services and governmental sectors, because

- essentially it targets all households,
- it expands audio-visual services selections,
- it may promote the use of information society services,
- creates significant need for service provider (transmitters, network) and consumer (decoders, digital receivers) investments
- it may result in a rearrangement of analogue market positions and revenue processes in the communications and media sector,
- it speeds up institutional and regulatory convergence processes.

# Process of DSS



- Situation evaluation
- (market research, interviews with the biggest market players, data from the authorities, etc.)

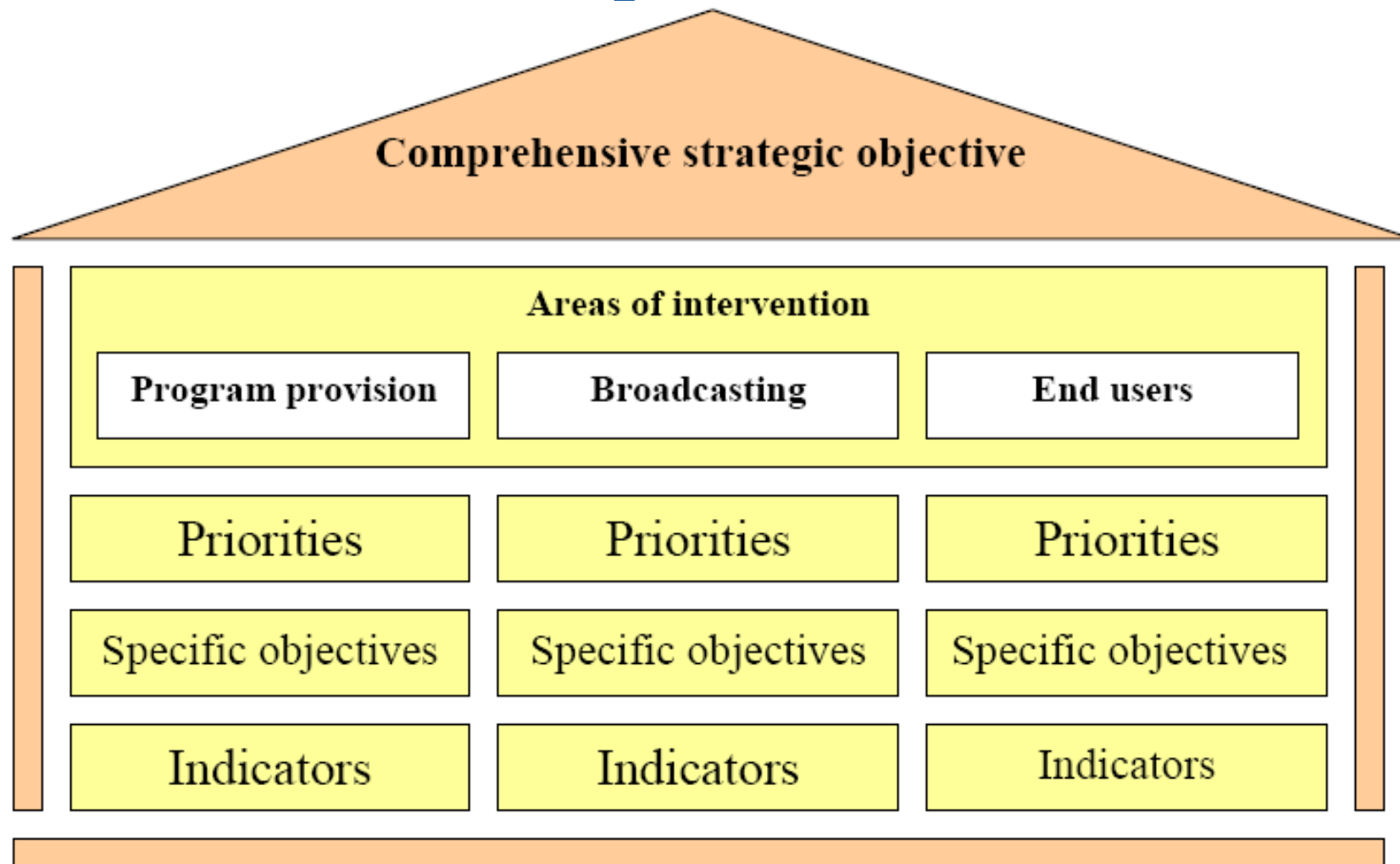
- Future

- Programming of strategy

## Instruments of the strategy /pillar

“Philosophy” and instruments of the strategy	The overall objective of the strategy is to aid the priorities listed below during the digital switchover with <b>clear regulatory conditions and practice</b> , in accordance with relevant EU directives; confident <b>public policy involvement</b> and a targeted <b>subsidy policy</b> that upholds the principles of technological neutrality.
Priority 1	The reinforcement of <b>media pluralism</b> Digitalization of <b>television and radio archives</b> Spreading of <b>interactive services with high added value</b>
Priority 2	Expedient use of limited resources Establishment of <b>sustainable and effective market competition</b> in digital broadcasting
Priority 3	Improvement of <b>consumer awareness</b> Making basic digital television services <b>accessible to disadvantaged social groups</b>

# Structure of the strategy system of objectives



## Area of intervention – Program provision

Priorities	Specific objectives	Indicators
<i>Strengthening of media pluralism</i>	Switching off analogue terrestrial broadcasting should not mean that popular free channels (m1, RTL Klub, tv2) will be lost	The percentage of households currently accessing analogue supply.
	Availability and use of multi-channel (10+) television services should dynamically increase as a result of digitalization	DTV coverage and penetration
	Public service radio must be granted a broadcasting opportunity on the DVT-T multiplex and an independent DAB multiplex access	Digital coverage of public service radio channels
<i>Digital content and service development</i>	Promotion of the digitalization of already existing television and radio programming contents	Digitalized content per total content to be digitalized
	Development of interactive DTV services of high added value	Number of interactive services and interactive set-top boxes

## Area of intervention – Broadcasting

Priorities	Specific objectives	Indicators
<i>Sustainable and effective competition between the broadcasting networks</i>	The percentage of households using digital broadcasting service should reach the level of the following EU15 benchmark countries: Portugal, Ireland, Norway, Finland, Germany, Denmark and Sweden	DTV coverage and penetration
<i>Efficient management of limited resource</i>	Frequencies and tendering system ensuring a balanced switchover and favourable long term business opportunities for digital television and radio broadcasting	Number and coverage of frequencies available for digital television (fixed, non-fixed, mobile) and radio
	Promotion of effective compression procedures	Number of MPEG4-compatible end-user devices
	Gradual switch-off of analogue terrestrial services by 2012 in order to free the frequencies currently used for analogue broadcasting	Number and percentage of households with analogue terrestrial reception only
	Introduction of T-DAB service	



## Area of intervention – End users

Priorities	Specific objectives	Indicators
<i>Improving consumer awareness, providing information on digital television opportunities</i>	Presentation of the advantages of digital television and radio services	Number and percentage of households with analogue terrestrial reception only
	Preparation of households for the switching off of analogue terrestrial services, and the effective communication of the opportunities, benefits and costs of changing the reception mode	
<i>Improving the access opportunities of disadvantaged groups</i>	Provision of end-user devices providing access to public service contents for those who cannot afford to purchase such a device	Number and percentage of households with subsidized digital access devices

## Instruments –Public policy

*Strategic orientation*

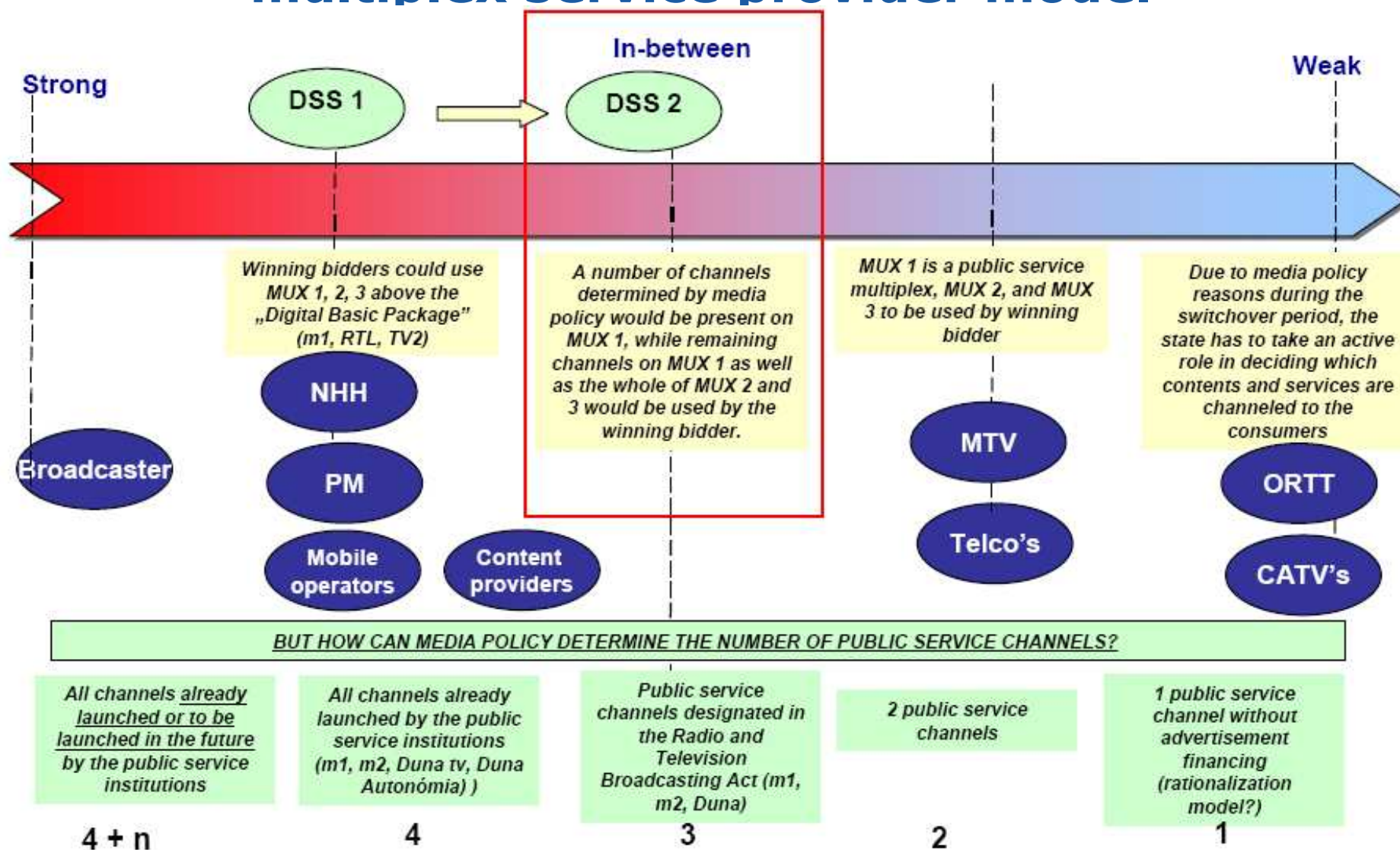
*The tendering system of digital terrestrial multiplexes*

*Providing information to consumers*

*The role of public service channels in digital switchover*

*Measures associated with the establishment of digital archives*

## Choosing between „the strong or weak multiplex service provider model”



## Instruments –Regulatory tools

**Frequency management**

**Competition control**

**Media regulation**

**Copyright rules**

**Conditions of placing receivers on the market**

**Standardization**

**Legislation on digital switchover**

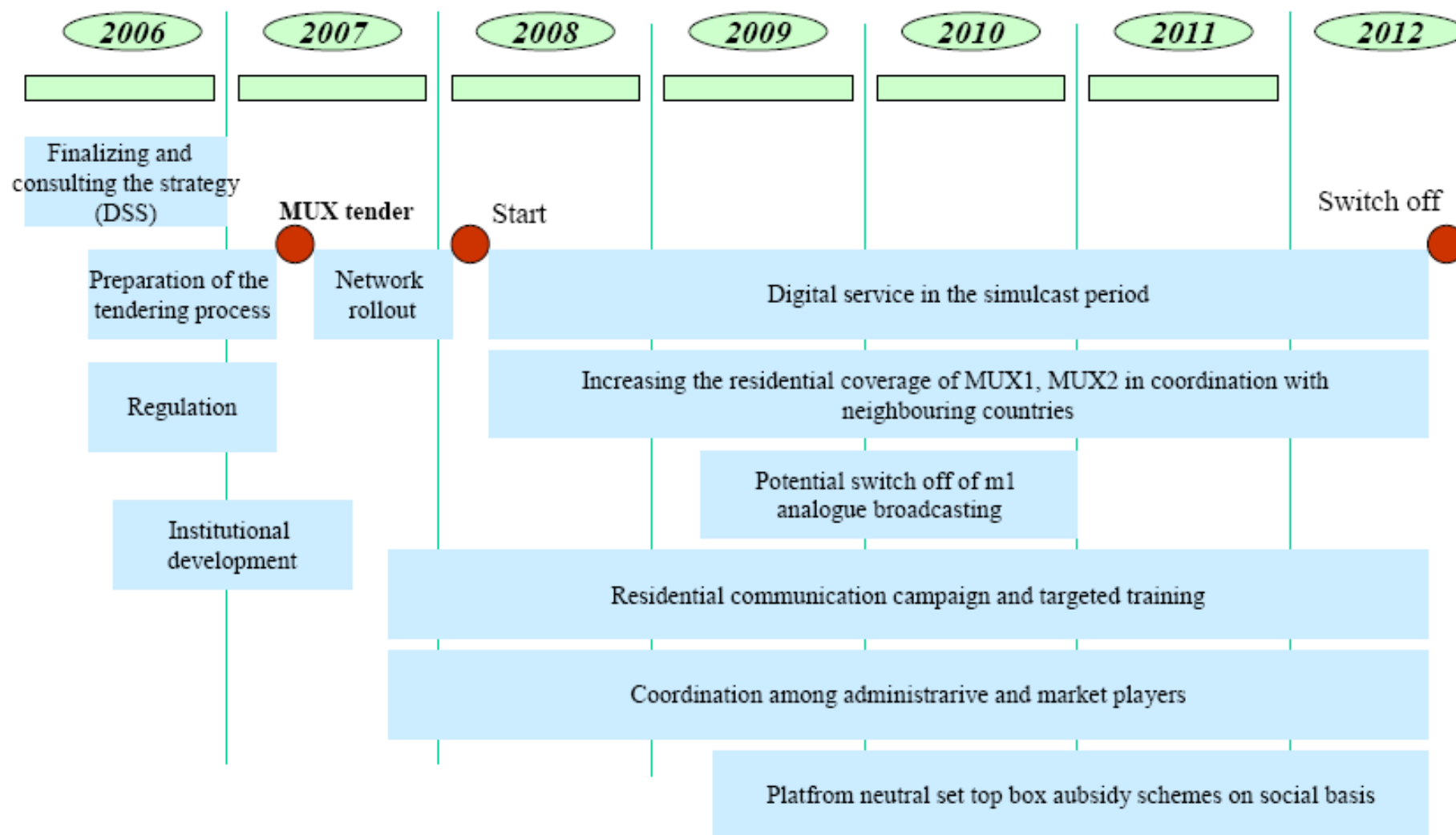
## Instruments –Forms of subsidy

**Network development subsidies of the  
Broadcasting Fund**

**Subsidies for digital set-top boxes**

**Innovative application and technology  
development**

## Possible schedule for switchover (by DSS in 2006)





# The time schedule (TV, Radio) (2010)

Strategy (*DSS*)

Act for digital broadcasting

Application

DTT, DAB+ launch

ASO (TV)



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# Relationship between objectives and instruments

- E 1. Adoption of the Digital Switchover Strategy (DSS)
- E 2. System for the allocation of digital terrestrial multiplexes
- E 3. Information to consumers
- E 4. Role of public service broadcasters in the digital switchover
- E 5. Promotion of digital archiving
- E 6. Frequency management
- E 7. Competition control
- E 8. Media regulation
- E 9. Copyright rules
- E 10. Conditions of placing receivers on the market
- E 11. Standardization
- E 12. Legislation on digital switchover
- E 13. Network development subsidies from the Broadcasting Fund
- E 14. Subsidies for digital set-top boxes
- E 15. Innovative application and technology development in digital broadcasting



# Area of intervention – Program provision

Priorities	Specific objectives	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12	E13	E14	E15
Media pluralism	Switching off analogue terrestrial broadcasting should not mean that popular free channels (m1, RTL Klub, tv2) will be lost	X	X	X					X		X		X			
	Availability and use of multi-channel (10+) television services should dynamically increase as a result of digitalization	X	X	X	X		X	X			X					
	Public service radio must be granted a broadcasting opportunity on the DVT-T multiplex and an independent DAB multiplex access			X	X		X									
Digital content and service development	Promotion of the digitalization of existing audiovisual contents	X			X	X				X						
	Development of interactive DTV services	X	X		X		X		X		X	X				X

# Area of intervention – Broadcasting

Priorities	Specific objectives	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12	E13	E14	E15
Sustainable and effective competition	The percentage of households using digital broadcasting service should reach the level of the following EU15 benchmark countries: Portugal, Ireland, Norway, Finland, Germany, Denmark, Sweden	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Efficient management of limited resource	Frequencies ensuring a balanced switchover and favourable long term business opportunities	X					X						X			
	Promotion of effective compression procedures			X			X					X				X
	Gradual switch-off of analogue terrestrial services by 2012 in order to free the frequencies currently used for analogue broadcasting	X	X	X			X	X	X		X		X	X		X

# Area of intervention – End users

Priorities	Specific objectives	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12	E13	E14	E15
Information to consumers	Preparation of households for the switch-off of analogue terrestrial services, and the effective communication of the opportunities, benefits and costs of changing the reception mode	X	X						X							
Access for disadvantaged groups	Provision of end user devices providing access to public service contents for those who cannot afford to purchase such a device	X	X												X	



# Process of DSS

**DSS 1.0 version**

**Consultation**

**DSS final version**

**Government decree**

**5-party negotiations**

**Digital Switchover Act**

**Bidding for digital networks**

**Analogue switch off (end 2011)**



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# Digital Switchover Act

**June 2007**

➤ **Joint DVB-T and T-DAB**

➤ **Aim: ASO by 2012**

- **3 analogue frequencies**
- **"strong multiplex model": 5 networks - a single network operator.**
- **Frequencies for digital radio broadcasting - parallel with DVB-T networks.**
- **Local and not-for-profit broadcasters - special attention**

# Digital Switchover Act

## The Digital Switchover Act...

- **separation of regulation** (media and telecommunications)
- **simplified** licensing procedures
- possibility of **mobile television**
- **favourable conditions** for public service, general interest and commercial channels
- **regime of frequency-coordination** that maximum coverage, no conflict with service operators.

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# Digital Switchover Act

- limitations of cross-ownership - **guarantee for a wide variety of channels**
- **transparent "must carry" regulation** on all platforms
- **EU-conform competition regulation** (e.g. CAS, API and EPG)
- government's preference for **state-of-the art technology**.
- **timetable for phasing out** non-digital television sets.

Thank you for your attention