



CONFINDUSTRIA RADIO TELEVISIONI

Italian digital terrestrial television towards 2020

ITU – MISE Regional Seminar for Europe
and CIS Spectrum Management and Broadcasting
29-31 May 2017
Rome, Italy

Session 2: Future of Digital Terrestrial Television Broadcasting
Rome, 29 May 2017

Elena Cappuccio, Public Affairs and Communication, CRTV

- ✓ About CRTV
- ✓ Main tech features of Italian DTT
- ✓ Other distinguishing features
- ✓ Italy, DTT as Primary platform
- ✓ Evolutionary path of Italian DTT



- ✓ Confindustria Radio Televisioni - CRTV is the trade association of Italian radio + TV broadcasters
- ✓ Established in June 2013 (operating since autumn)
- ✓ CRTV gathers all major broadcasting operators, both TV and radio, public and private, local and national, free and pay
- ✓ CRTV also represents all major national DTT network operators
- ✓ CRTV's goal is to represent the broadcasting industry as a whole (institutional, legislative and contractual level)
- ✓ CRTV is a sector member of ITU.

National Tv + Radio



Associazione TV Locali



40+ local TV



Associazione Radio Locali - FRT



50+ Local Radio



About (C)RTV - sector data

	Million euros	2014	2015	ΔYoY (%)
TOTAL TURNOVER				
TELEVISION		9.041,0	9.094,9	+0,6%
RADIO		518,4	540,5	+4,3%
<u>TOTAL</u>		9.559,4	9.635,4	+0,8%
EMPLOYEES				
Television		27.667	27.523	-0,5%
Radio		2.761	2.805	+1,6%
<u>TOTAL</u>		30.428	30.328	-0,3%

CRTV currently represents over 70% of the RadioTV sector

Italian DTT, mux and network features

- Italy has 20 national muxes allocated to DTT, with coverage of 90% of population (average, 18 muxes)
- All muxes (except one of PBS RAI which is MFN+K-SFN for regional windows) are Single Frequency Networks (SFN and 2-SFN depending on orography)
- 6 national muxes are entirely in the 700MHz. Some national muxes are in the 700MHz band in a few regions
- All national muxes are in the UHF-IV and V band except for 2 muxes (Rai and Europaway in VHF)
- Network capacity caters for 6-7 SD channels x mux
- National coverage is reached by approx. 12.000 transmitters on the national territory (ave. 600 per multiplex)

Network Operator	No. of multiplex	Standard of Transmission	Network Configuration*
3lettronica Industriale	1	DVB-T	SFN
Cairo Network	1	DVB-T	SFN
Elettronica Industriale	5	DVB-T	SFN
Europa Way	1	DVB-T2**	SFN
Persidera	5	DVB-T	SFN
PDBS	1	DVB-T	SFN
Prima TV	1	DVB-T	SFN
Rai	5	DVB-T	4 SFN + 1 MFN+k-SFN
TOTAL	20		

Elaboration by Confindustria Radio televisioni - CRTV on different sources, 2017. Coverage data were available for 18 muxes

(*) SFN and 2-SFN depending on orography of national territory

(**) Europa Way mux is operating only locally (Lazio).

Italian DTT Platform – Local networks

	Multiplex	No. SMAV Providers	Programs / Network Operators
Abruzzo	33	39	4,4
Basilicata	22	26	3,5
Calabria	57	79	4,4
Campania	49	87	4,0
Emilia Romagna	41	63	6,0
Friuli Venezia Giulia	20	32	5,6
Lazio	45	71	5,6
Liguria	36	37	5,0
Lombardia	63	82	4,6
Marche	25	35	4,6
Molise	19	21	4,9
Piemonte	30	50	6,3
Trento + Bolzano	22	37	4,7
Puglia	45	59	4,1
Sardegna	12	19	4,3
Sicilia	81	101	3,4
Toscana	52	65	4,2
Umbria	25	36	4,6
Valle d'Aosta	12	18	5,3
Veneto	32	60	7,3
TOTAL	721	1.017	

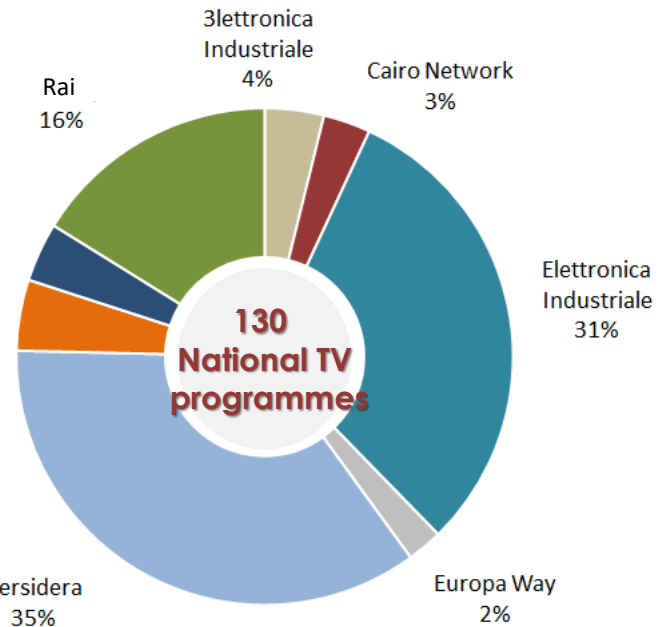
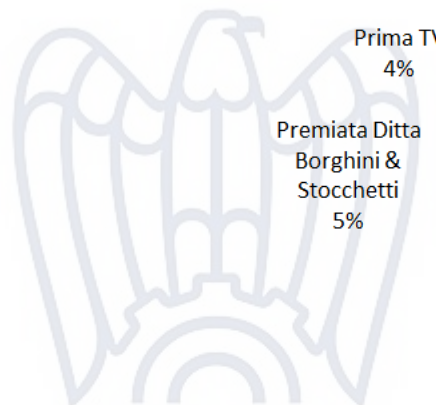
Source: Agcom 41/17/CONS on Registro degli Operatori di Comunicazione (ROC) / Catasto Nazionale delle Frequenze (CNF).
Data as at March 2016.

On top of intensive use of frequencies at national and local level and performing SFN networks (investment and implementation), other distinguishing features of Italian DTT include:

- ✓ 30%+ of TV frequencies are located in the 700MHz. 60% of the 700MHz band is used by national TV, the rest by local TV
- ✓ authorizations to transmit on DTT networks (20 year duration) span to:
 - 2032 for 19 national muxes
 - 2034 for 1 national mux
 - 2032 for 700+ local muxes
- ✓ Italy has 14+ neighbouring countries of which about 50% extra UE (coordination, interference)
- ✓ Italy's peculiar orography requires a high no. of transmission sites for national coverage (600 ave.)

National multiplexes	20
National MUX Operators	8
Network Configuration	SFN

Local Multiplex	721 (30+ ave. per region)
Local Operators (SMAV + MUX)	1.071



TELEVISION (National)

No. of TV broadcasters	36
No. of TV programmes	130
No. of HD programmes	21
No. of pay tv services	32

RADIO (National)

No. of Radio broadcasters	7
No. of radio programmes	14

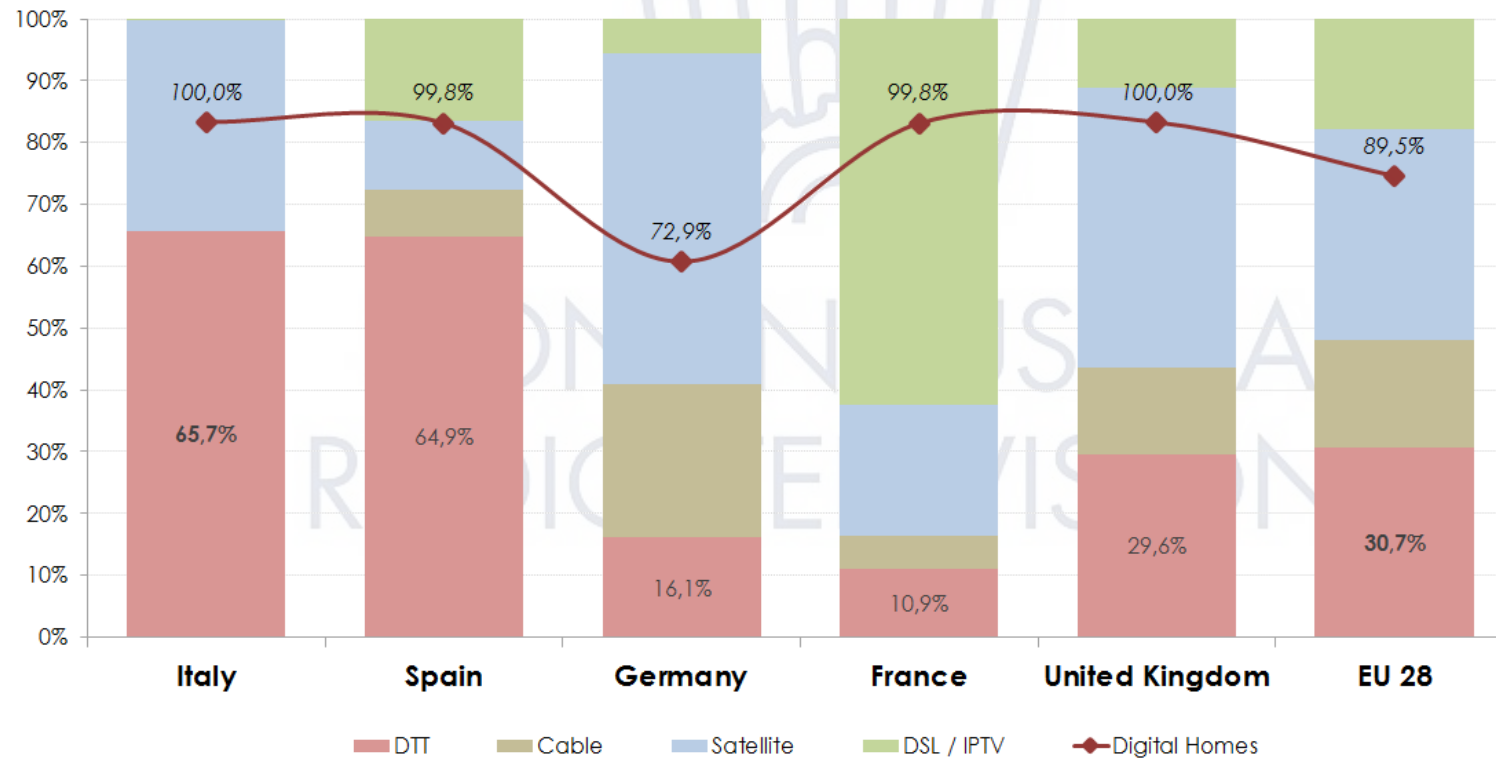
Italian DTT Platform – MUX and offer

RAI (5 MUX)	MEDIASET (5 MUX)	Persidera (5 MUX)	DFREE (1 MUX)	Cairo2 (1 MUX)	LA3TV (1 MUX)	RETE CAPRI (1 MUX)	EUROPA 7 (1 MUX)

Elaboration by CRTV – Offer is updated at 15 May 2017. Mux operator Europa Way (mux Europa 7) is currently managed by Special Commissioner and transmits only within the Lazio region. In 2016 AXN Italia (Sony Pictures Releasing Italia) acquires Newco 11 (Television Broadcasting System) and the related authorizations (SMAV provider and LCN) of Neko Tv and Capri Gourmet (LCN45 e LCN55) carried on Rete Capri mux .

- ✓ 66% of Italy's TV households (16.5 million) use DTT on the primary TV set
- ✓ Over 50% of Italy's households are DTT-only (14.3 million, 2015)

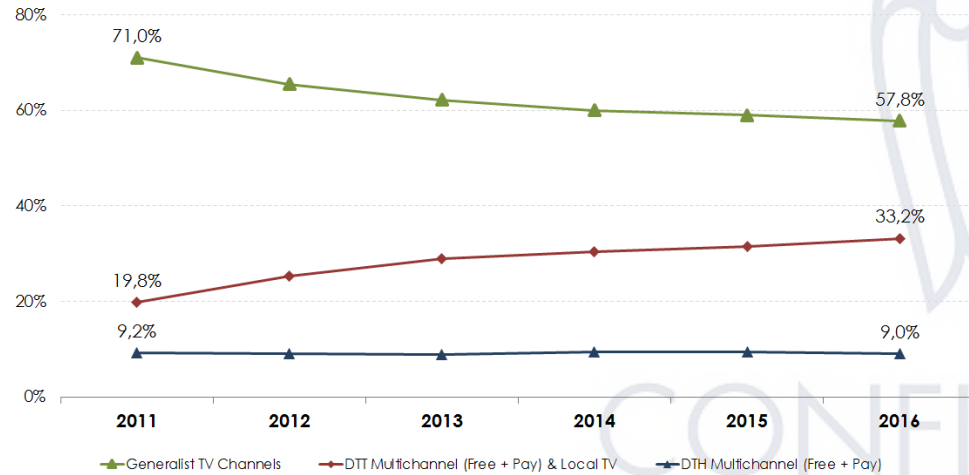
Digital TV reception in Europe (as at 31/12/2015)



Elaboration by Confindustria Radio Televisioni (CRTV) on European Audiovisual Observatory, Annual Yearbook 2016

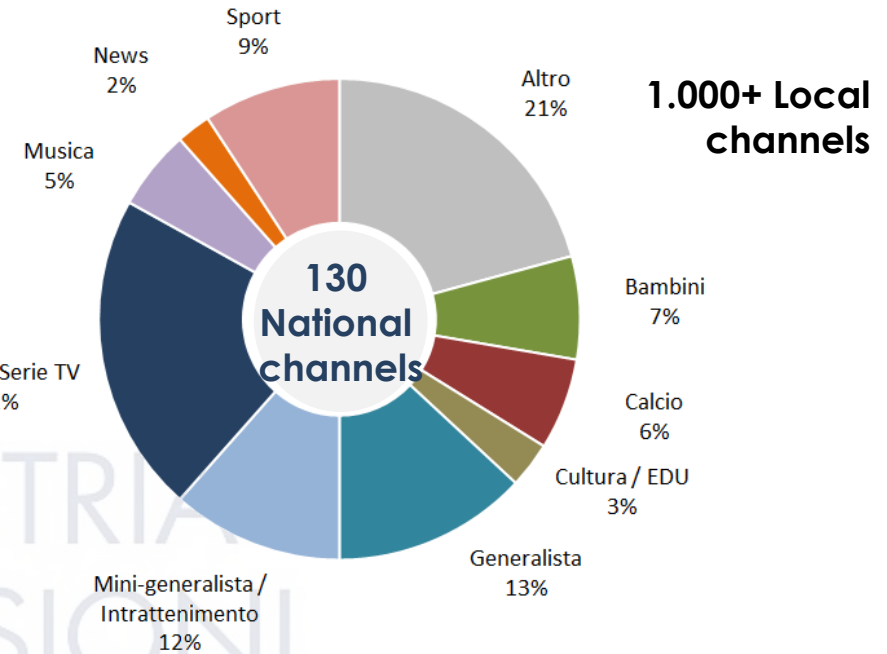
DTT is the main platform by:

AUDIENCE



Elaboration by Confindustria Radio Televisioni (CRTV) on Auditela data, daily share (L+VOSDAL) individuals 4+

VARIETY OF OFFER



Elaboration by CRTV on operators data. Updated 15 May 2017

Italy is the only EU market with a fully-fledged pay TV offer on DTT
 (30+ services and programmes, approx. 2 mln active users + subscribers)

In order to migrate Italy's DTT in the sub 700MHz and allow the refarming of 700 MHz for mobile broadband use (5G) the following need to be taken into account:

✓ Costs for users

- TV sets. There is an estimated 35% legacy of Mpeg2-only (primary) tv sets (about 7 million units). Overall TV sets in Italian TV hhs are estimated in 48.5 million (IDTV and STB). Estimated MPEG2 legacy on overall sets is 17 mln.
- The mandatory sale of DVBT2/HEVC tv sets on Italian market was only introduced in July 2016 (sell in) & January 2017 (sell out). TV sets renewal cycle is estimated in 7+ years.
- Aerials and filters.

✓ Costs for TV operators:

- migration to DVBT-2/HEVC (transition and refarming, network equipment, simulcast)

The **social and economic value of Italy's DTT has to be preserved** in the refarming of the 700MHz band. This means:

- Migrating to the more efficient and future-proof DVB-T2 standard with HEVC codec
- Contributing to the costs of such migration for:
 - ✓ users (equipment, aerials)
 - ✓ operators (upgrade of network for refarmin/migration, compensation for reduction of 20 year tx authorization)
 - ✓ SMAV providers (continuity of offer and resources – i.e. advertising R.O.I.)
- Ensuring capacity to cater for national and local offer in sub 700MHz

DTT platform's ability to innovate, develop and remain competitive (i. e. UHD TV) has to be preserved too

Thank you!

CONFINDUSTRIA RADIO TELEVISIONI

Piazza dei SS. Apostoli, 66 - 00187 ROMA

Tel: +39 06.93562122

Fax: +39 06.69368541

www.confindustriaradiotv.it



elena.cappuccio@confindustriaradiotv.it

Andrea Veronese, CRTV Research and Study Dept. andrea.veronese@confindustriaradiotv.it