

DTT transition & utilization of DD in CROATIA

Regional Workshop for Europe and CIS on SM and DTT

Budapest, 5-7 May 2015

AGENDA

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ASO

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DTV (DTT) TODAY

3

CHRONOLOGY

4

UTILISATION OF THE DIGITAL DIVIDEND

5

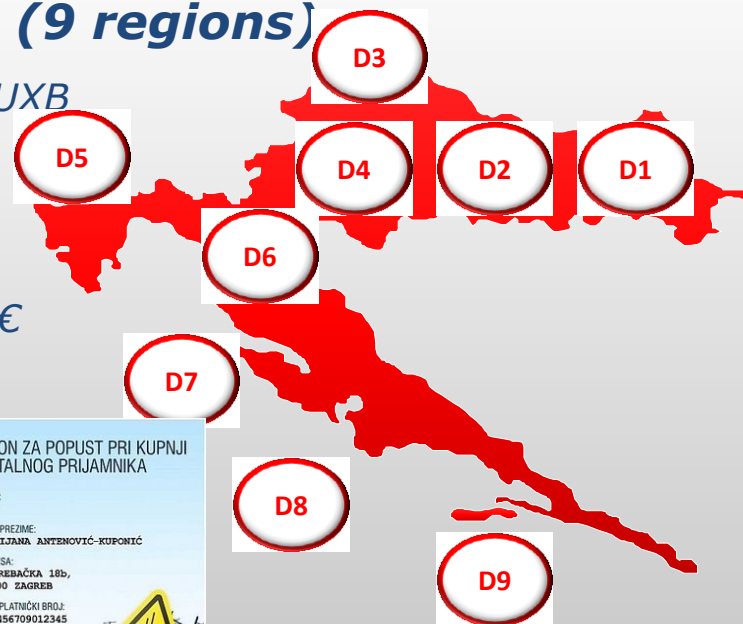
FUTURE PLANS

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ASO FACTS

- ✚ **"Analogue to Digital Television Broadcasting Switchover Strategy for the Republic of Croatia" - Government, 31/07/2008**
- ✚ **Analogue to digital TV switchover by **1 January 2011****
- ✚ **MPEG-2 for SDTV, MPEG-4 (H.264/AVC) for HDTV and „Pay TV“**
- ✚ **Switchover concept: region by region (9 regions)**
 - ✚ *First phase (national programs+new) –MUXA/MUXB*
 - ✚ *Secound phase (local/regional+new) –MUX D*
- ✚ **Social dimension**
 - ✚ *subsidy for every public television subscriber 10€*
 - ✚ *Information and promotion campagne*
 - ✚ *Support for subscribers*



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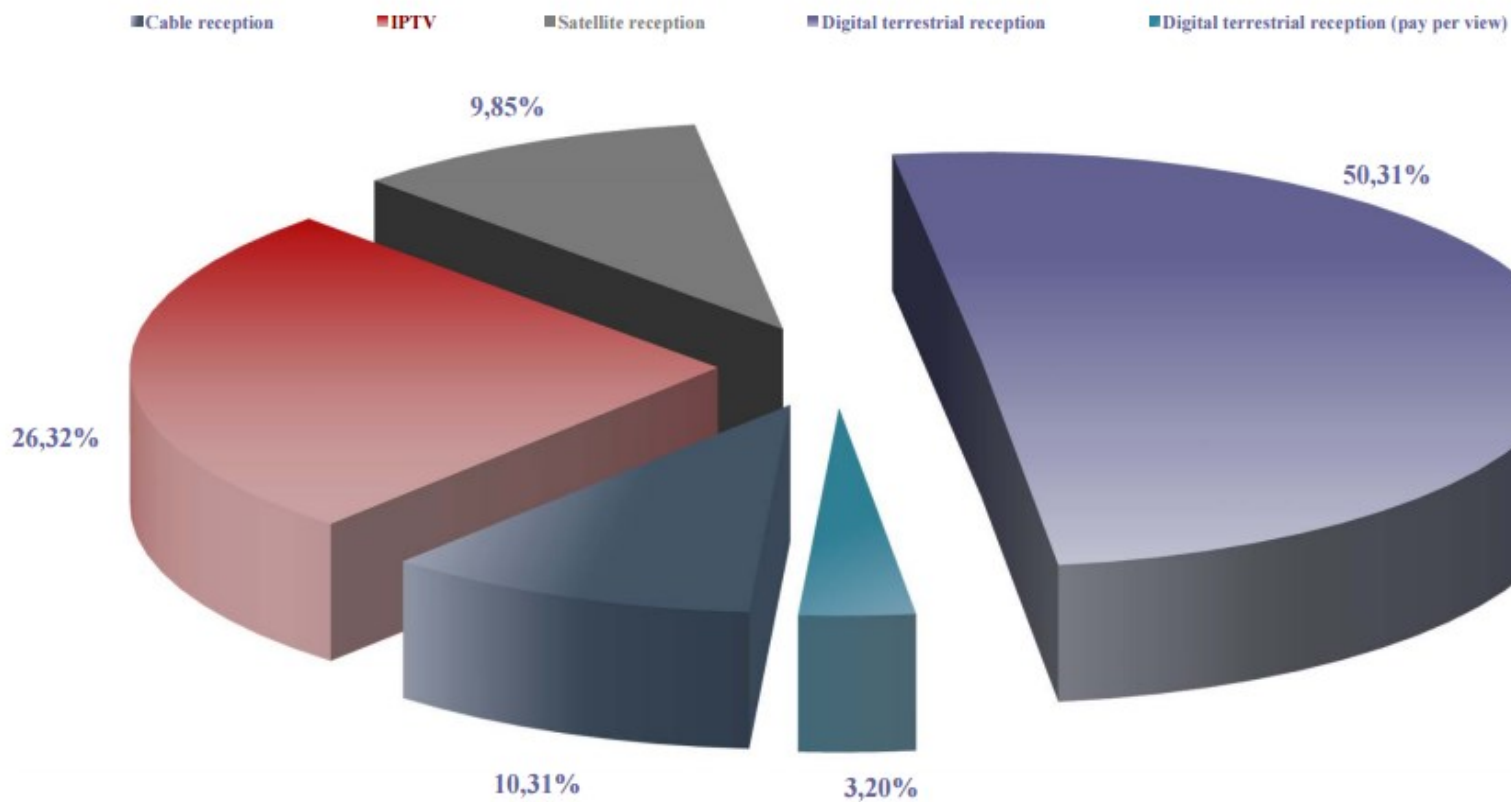
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DTV Today

**Market Share by reception type
Q4 2014**



Note: The number of Digital terrestrial reception = (Number of HH in Republic of Croatia - number of HH without TV) - (number of Cable reception + number of IPTV + number of Satellite reception + number of Digital terrestrial reception (pay per view))

DTT Today

5 MUXs / networks

FTA (DVB-T, MPEG-2)

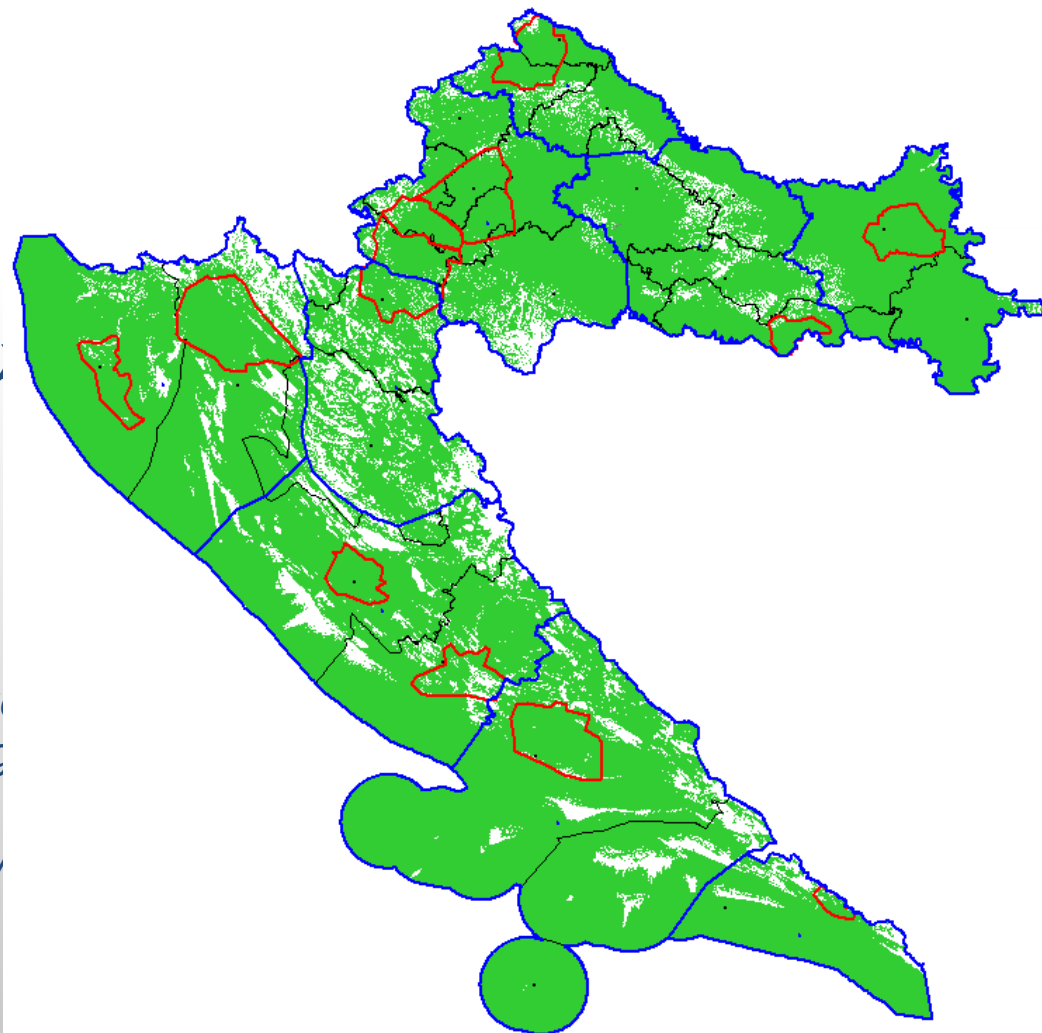
- MUX A >98.5% population
- MUX B >95% population
- MUX D >90% population

PAY-TV (DVB-T2, H.264(MPEG-4))

- MUX C >85% population
- MUX E >85% population

81 programs

- 31 FTA programs (SD)
 - 4 PSB nacional coverage
 - 7 comercial nacional coverage
 - 20 regional/local coverage
- 47 Pay-TV programs (SD/HD)
- 4 radio programs



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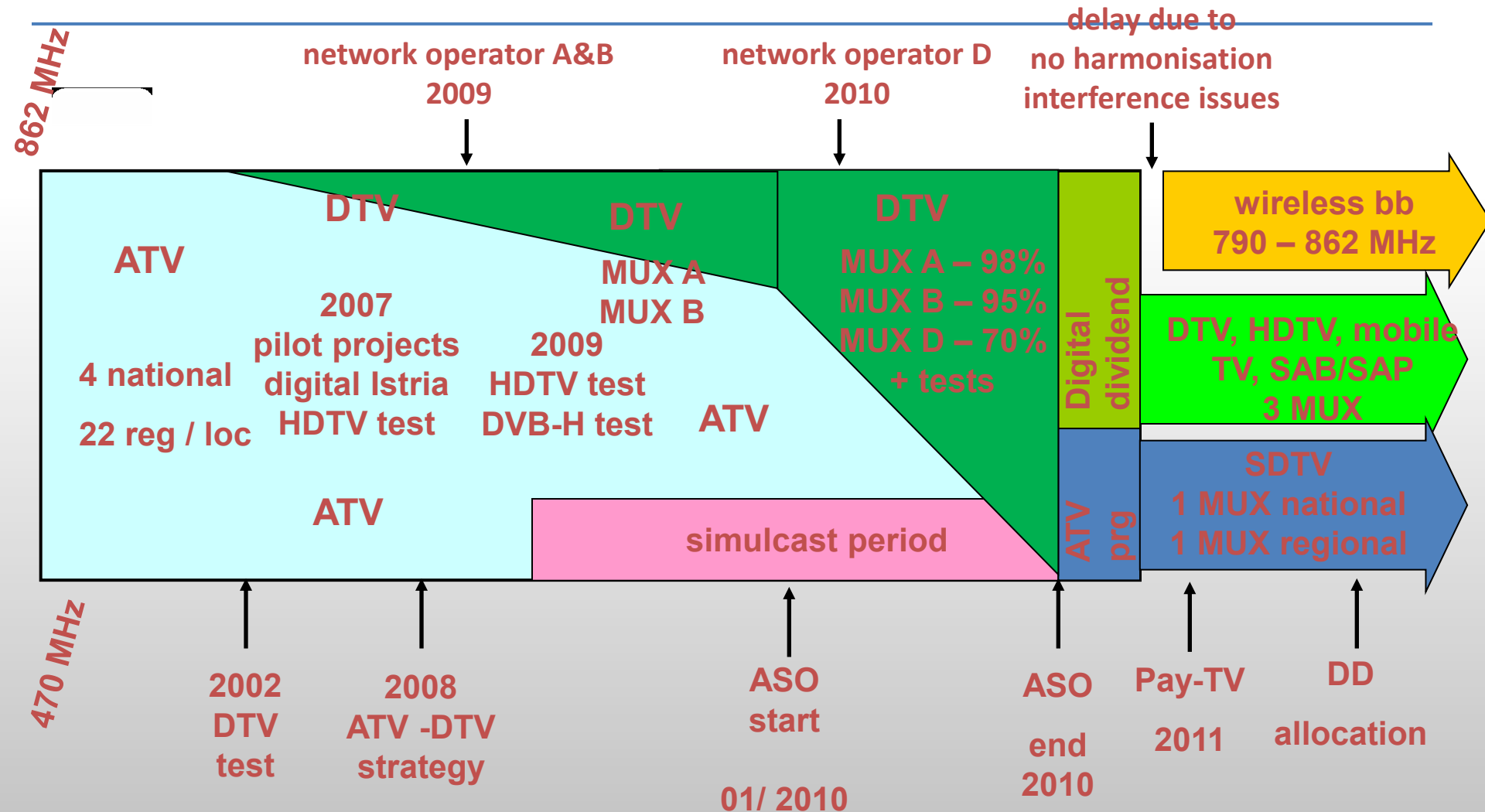
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Utilization of the Digital Dividend

❖ **Mobile communications in 790-862 MHz allowed in 2008**

❖ **Spectrum cleared in 2010**

❖ **licenses for LTE awarded**

❖ **2012 – public call – 2 operators – 2 x 10 MHz each CIFRE**

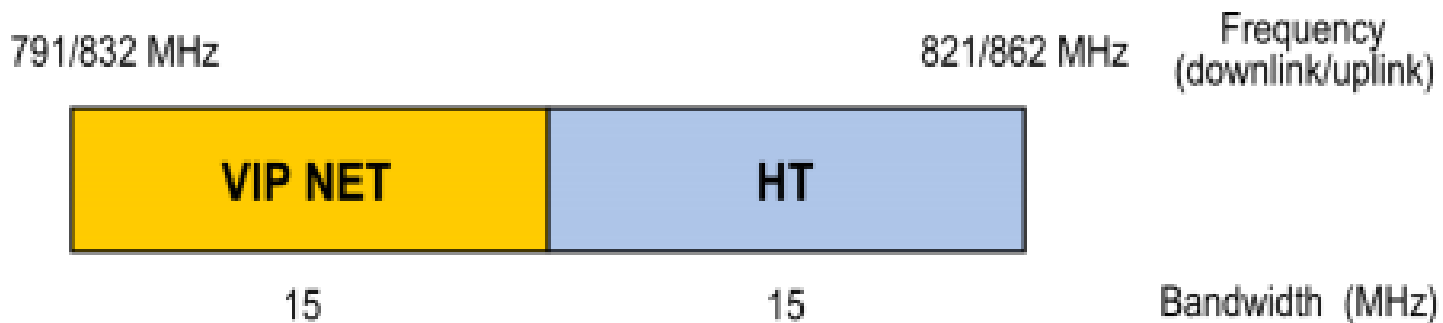
❖ **One off fees in total – 40 mil. €;**

❖ **314k € per 1 MHz yearly**






❖ **2 x 10 MHz remained unassigned**

❖ **2013 – closed bid auction – 2 operators – 2 x 5 MHz each**

❖ **In total 49 mil. €**



Utilization of the Digital Dividend - interference

-  ***Procedure of eliminating the potential interference to DVB-T receivers defined in cooperation with operators (DVB-T and mobile)***
-  ***HAKOM finances the filters for users, other interferences are in the responsibility of the mobile operators***
-  ***Currently there is around 80 LTE800 base stations in operation***
-  ***No reported interferences up till now – no big investments, base stations mostly in rural areas***
-  ***In next year cases of base stations in urban areas are expected – potential interference***

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Future Plans

- ❖ ***Strategy for second digitalisation (switchover to DVB-T2) and release of second digital dividend (694-790 MHz) is in preparation***
- ❖ ***TV licenses valid until 2021***
- ❖ ***Preparation for DD2 (694-790MHz)***
- ❖ ***Replanning of the current DTT networks***
- ❖ ***Analizing future needs for the DTT capacity***
- ❖ ***Defining future standards (DVB-T2 and H.264 or H.265)***

05/05/2015