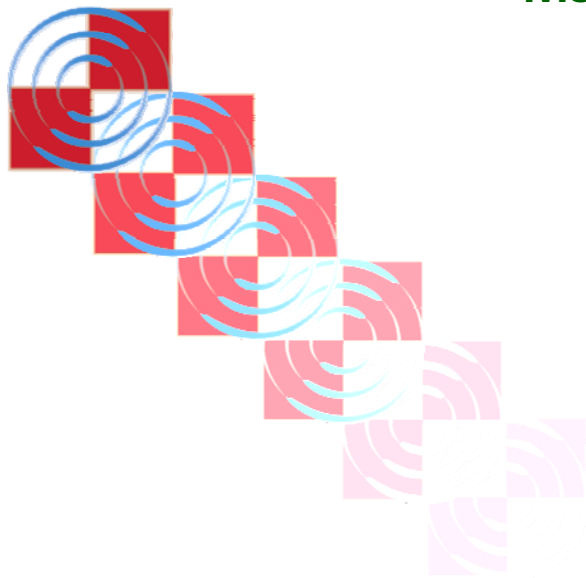# Croatian Telecommunications Agency

Relevant Market Analysis

Market 11 and Market 12
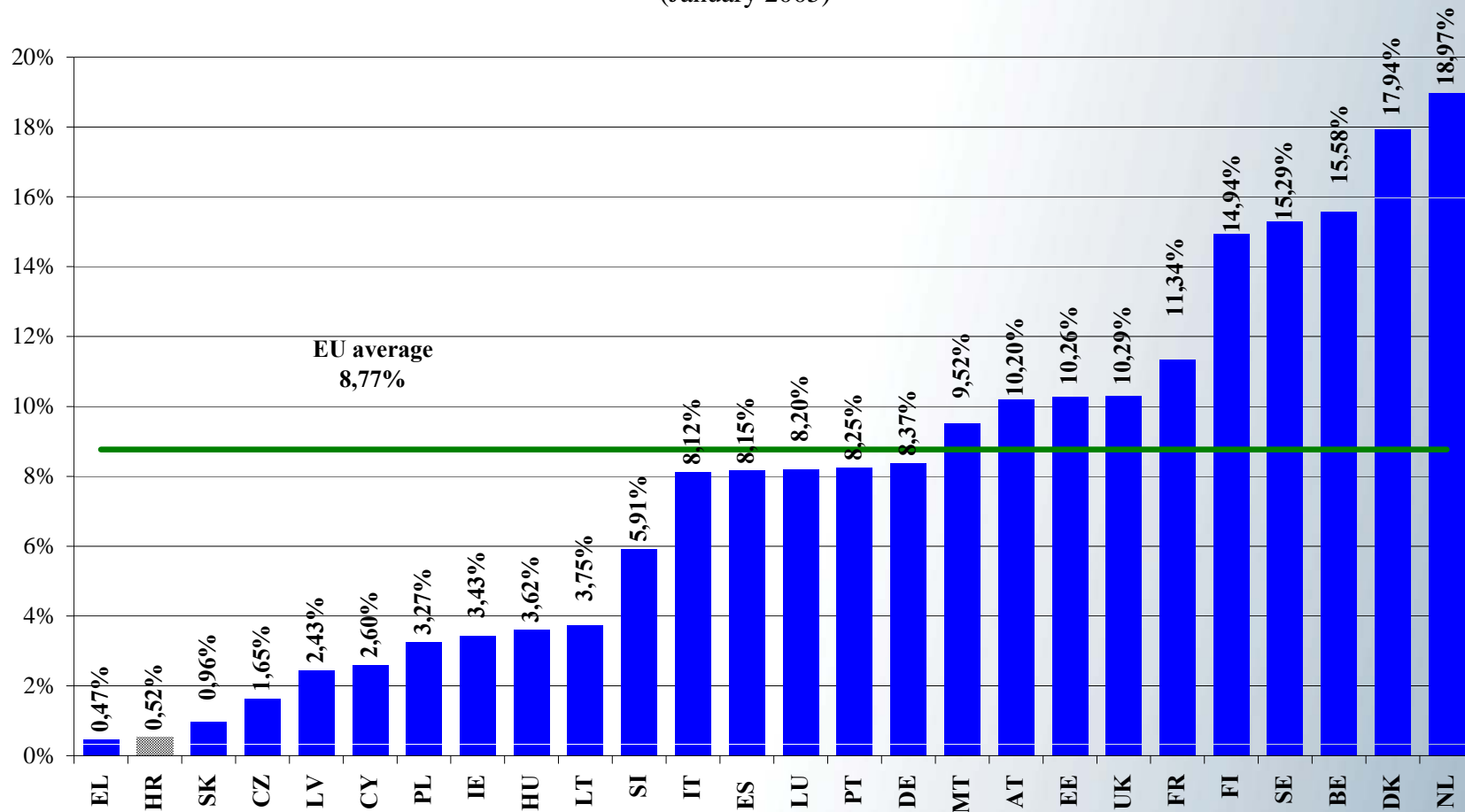
Tonko Obuljen
Iva Ivanković

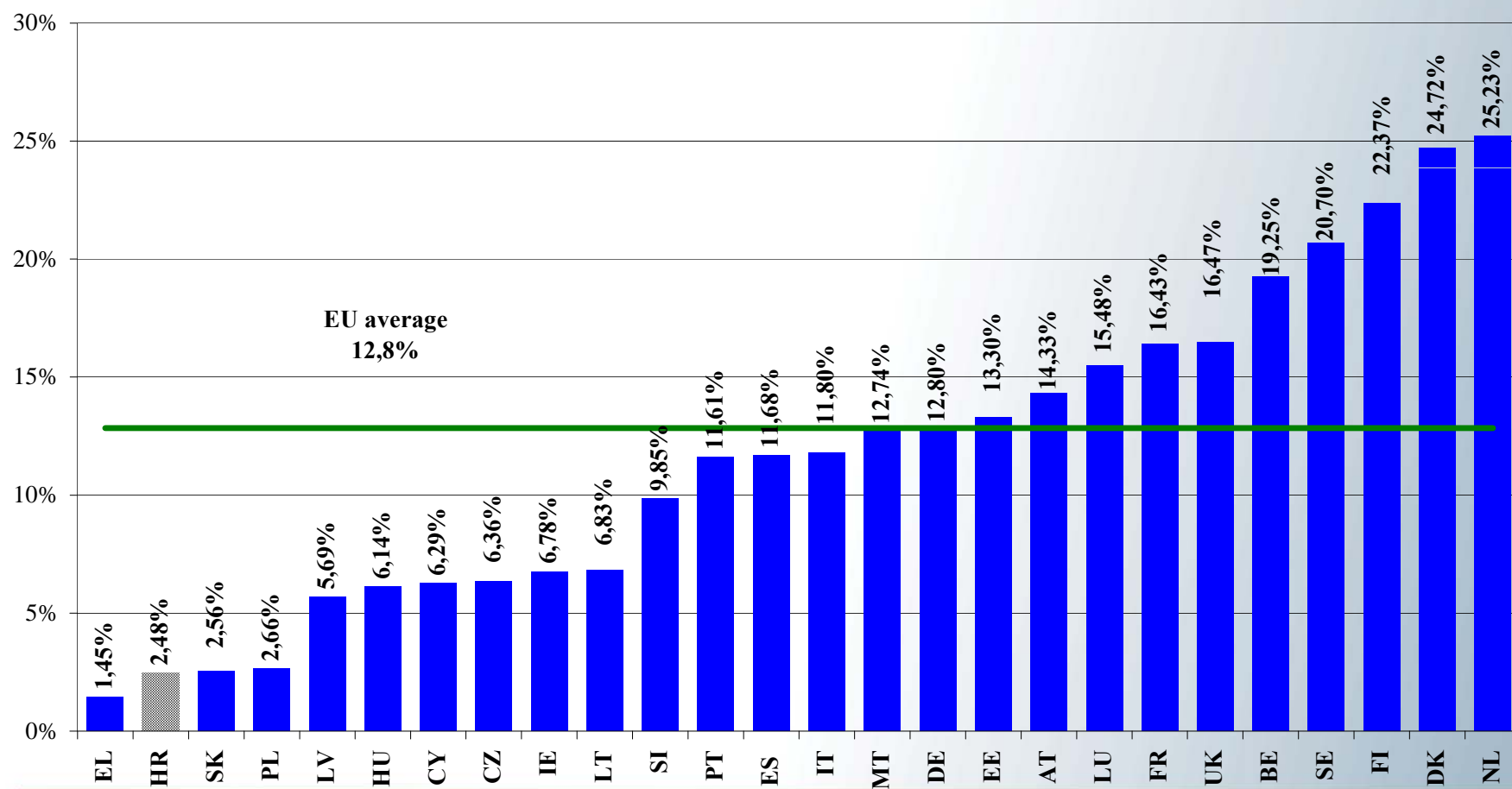# Broadband penetration rate
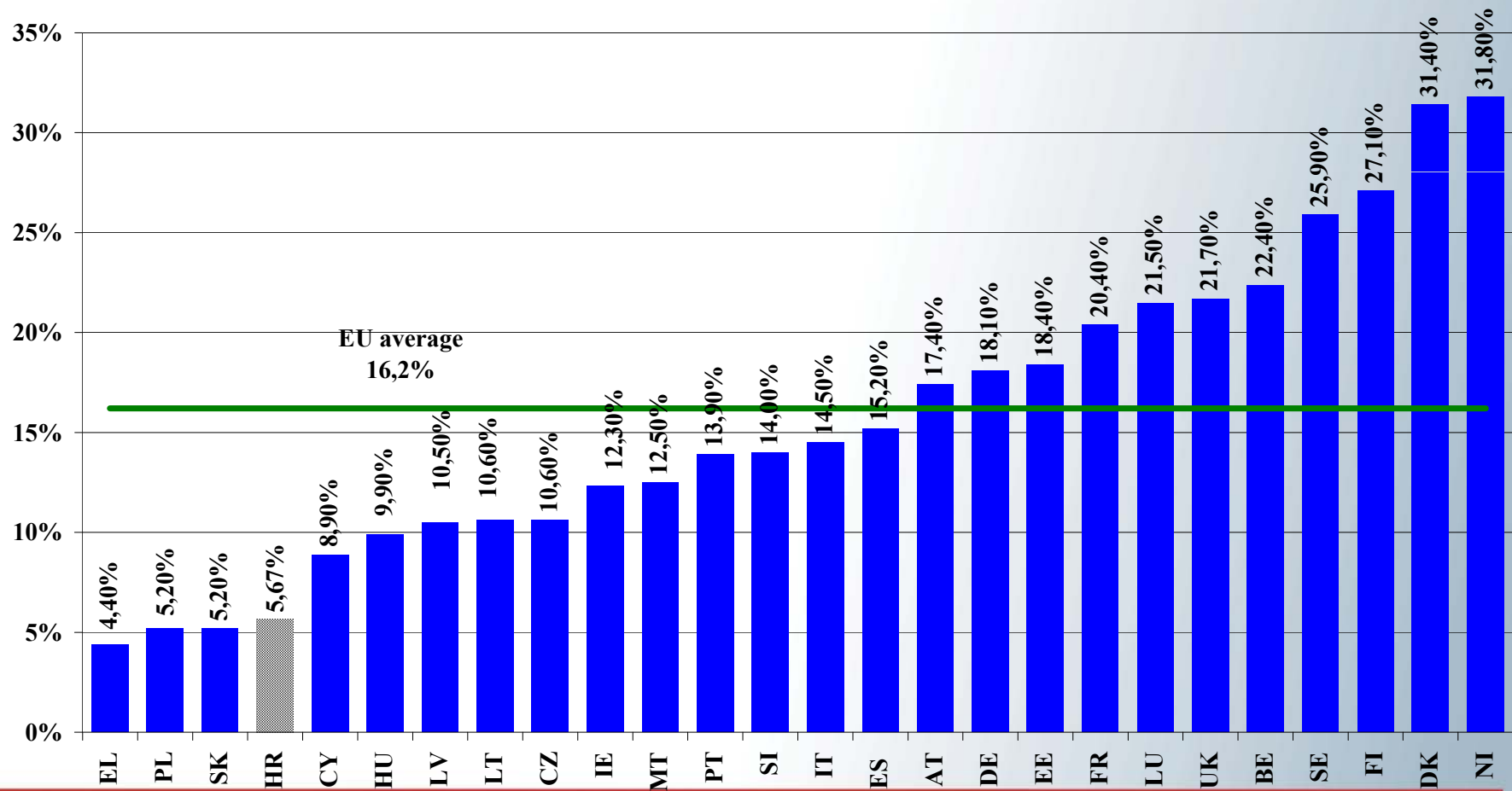
(January 2005)

Broadband penetration rate

(January 2006)

EU average 12,8%

Country	Rate
EL	1,45%
HR	2,48%
SK	2,56%
PL	2,66%
LV	5,69%
HU	6,14%
CY	6,29%
CZ	6,36%
IE	6,78%
LT	6,83%
SI	9,85%
PT	11,61%
ES	11,68%
IT	11,80%
MT	12,74%
DE	12,80%
EE	13,30%
AT	14,33%
LU	15,48%
FR	16,43%
UK	16,47%
BE	19,25%
SE	20,70%
FI	22,37%
DK	24,72%
NL	25,23%

Broadband penetration rate
(January 2007)

4,40%	5,20%	5,20%	5,67%	8,90%	9,90%	10,50%	10,60%	10,60%	12,30%	12,50%	13,90%	14,00%	14,50%	15,20%	17,40%	18,10%	18,40%	20,40%	21,50%	21,70%	22,40%	25,90%	27,10%	31,40%	31,80%
EL	PL	SK	HR	CY	HU	LV	LT	CZ	IE	MT	PT	SI	IT	ES	AT	DE	EE	FR	LU	UK	BE	SE	FI	DK	NI

EU average
16,2%

Topics

- Legislative Framework

- Market Analysis Procedure

- Relevant Markets Definition

- Relevant Markets Analysis

Legislative and Regulatory Framework in Croatia

- Telecommunications Act (**122/03**, 158/03, 60/04, **70/05**)

- Ordinances

- Croatian Telecommunications Agency (CTA) – founded in September 2004.

- CTA Council – 5 members

- CTA Administrative service – 110 employees

Legislative and Regulatory Framework in Croatia

- Resolutions of CTA Council are final

- Appeals on the Administrative Court

- CTA authorized to perform all regulatory tasks

- Financial independence

- Data collection and site inspection

- Contracts with Competition Authority and State Statistics Institute

Legislative and Regulatory Framework in Croatia

- Concession agreement with HT replaced by individual licenses

- SMPs designated according to existing legislation

- Reference offers published (RIO and RUO)

- Access disputes

- Use of existing infrastructure (ducts and masts)

- Building capacity of the regulator

Legislative and Regulatory Framework in Croatia

- New law – opportunities and threats

- Transition period provisions

- Introduction of general authorization

- Strengthening of the right to issue fines – telecommunication supervisors

- Possibility to issue ordinances

Legislative and Regulatory Framework in Croatia

- Market analysis – Chapter VII of TA

- 4 markets defined

- Ordinance on the conditions and manner of determining relevant markets in telecommunications – in accordance with the 2002 Regulatory Framework

- Possibility to use Ordinance, which defines 18 markets but only for analysis

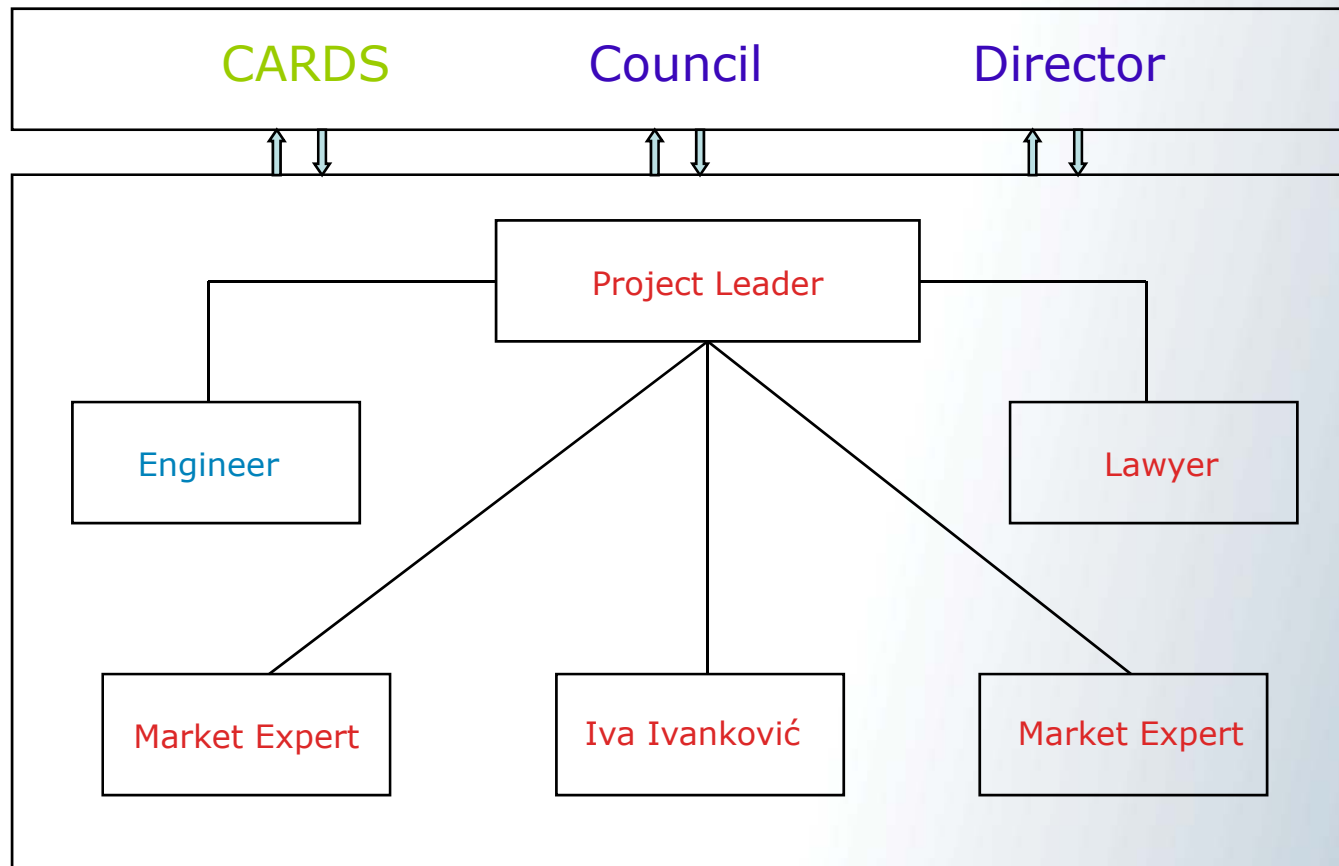- Remedies may be imposed only on predefined 4 markets

Legislative and Regulatory Framework in Croatia

- The Decision of the Agency Council - the procedure defined in the Article 5 paragraph 2 of the Ordinance shall in an adequate manner apply general principles from the Guidelines of the European Commission 2002/C 165/03 (OJ C 165/06, 11.07.2002.)

- October 2006 – the Government of the Republic of Croatia adopted the Strategy for the Development of Broadband Internet Access by the year 2008 and Implementation Action plan of that Strategy for the year 2007

- The goal of the Strategy: the reduction of the gap between Croatia and EU countries regarding broadband penetration rate

- Action plan defines continuous activities and individual measures to be conducted by the Government and national authorities by the end of 2007 for the purpose of achieving goals defined in the Strategy

Market Analysis Project Team

CARDS   Council   Director

Project Leader

Engineer

Lawyer

Market Expert

Iva Ivanković

Market Expert

Market Analysis Procedure

- ✓ Making of Questionnaires

- ✓ Data Collection

- ✓ Delivered Data Analysis

- ✓ Relevant Markets Definition

  - ✓ retail level

  - ✓ wholesale level

- ✓ Relevant Markets Analysis

- ✓ Publishing of the Document

- ✓ Public Consultation

Making of Questionnaires

- defining broadband access technologies

- defining data needed for market definition and market analysis

  - retail level

  - wholesale level

  - geographical coverage

  - prices

  - major costumers

- consultation with ERG/IRG members - their experience regarding making of questionnaires and market analysis

- comparison of their experience with our needs

Data Collection

- meetings with operators in order to define final content of the questionnaires

- defining the least download data speed that is considered to be broadband access capacity

  - COCOM considers download speeds in excess of 144 kbps to be broadband access capacity

- sending Questionnaires to the operators

- 30 days period for delivering Questionnaires to the CTA

Delivered Data Analysis
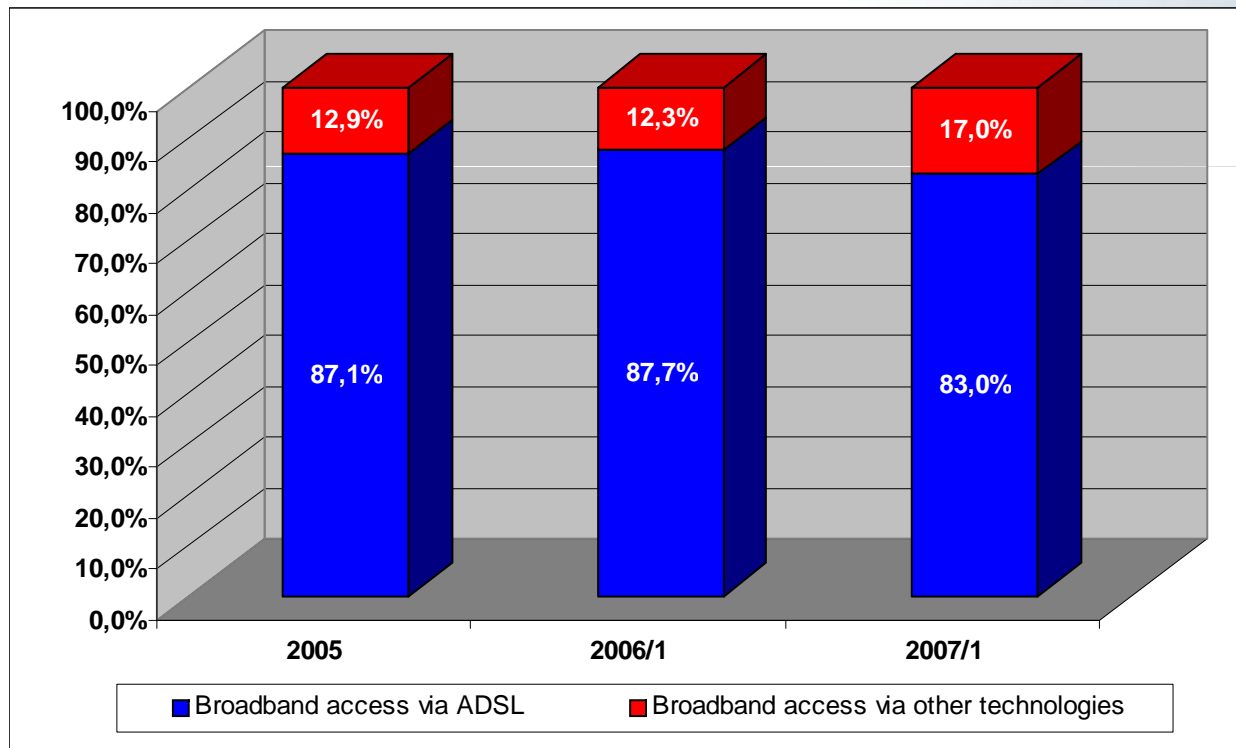
✓ Total number of broadband access connections
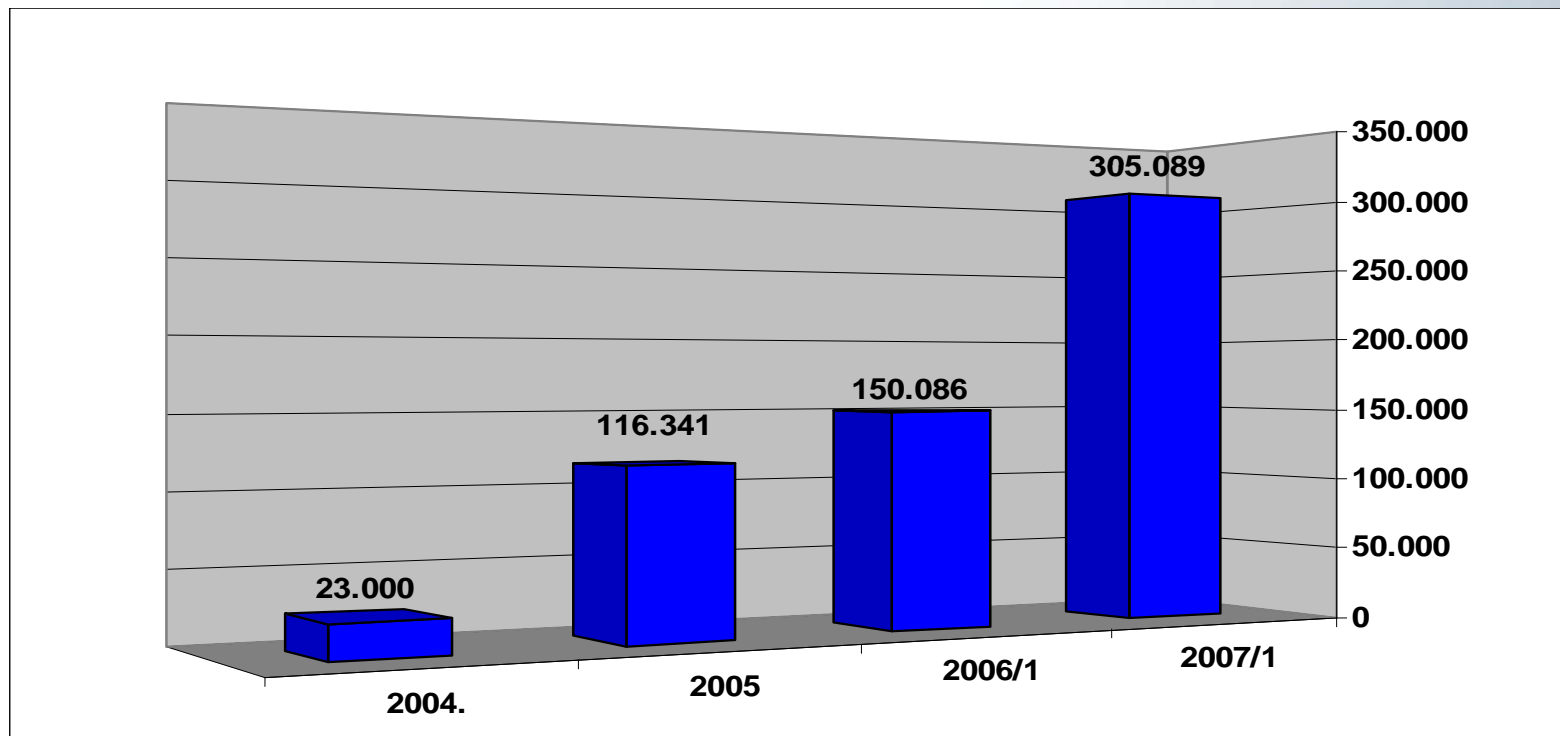
Delivered Data Analysis

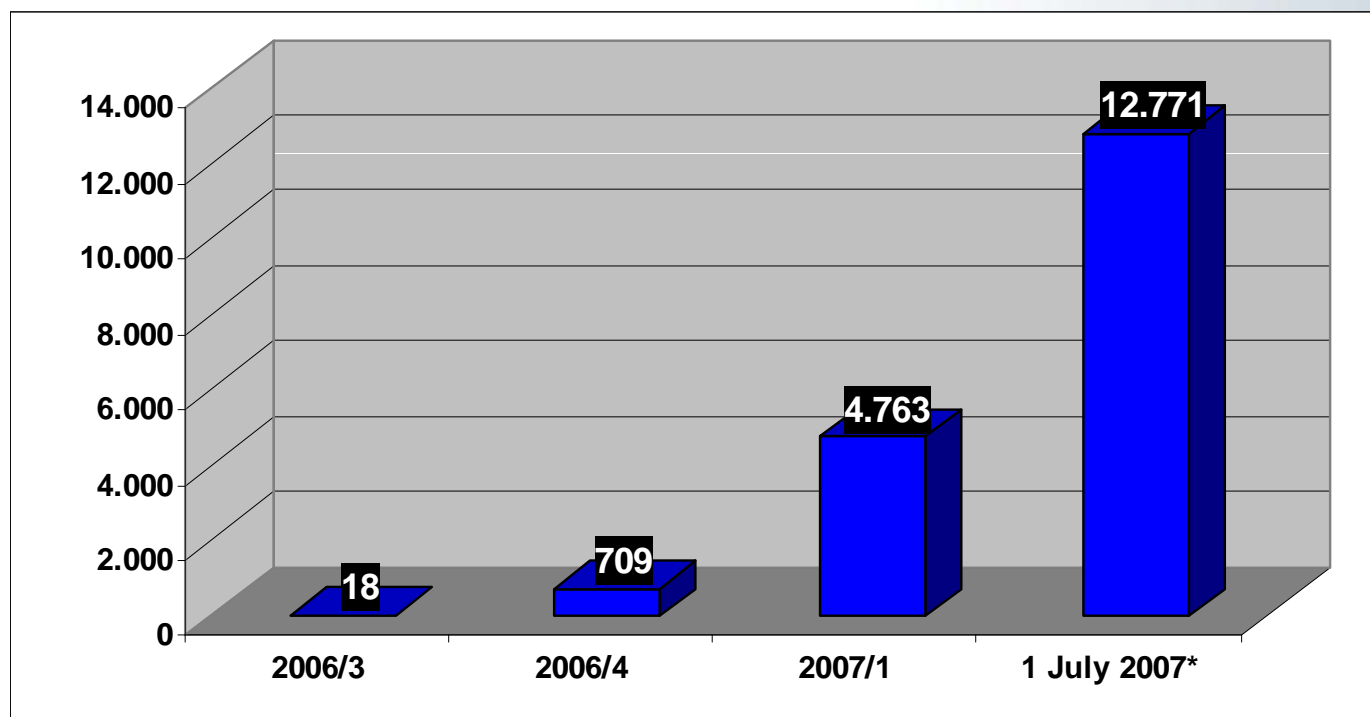✓ Share of broadband access via ADSL

- **Source: Questionnaires for Market 12**

Delivered Data Analysis

✓ Total number of unbundled local loops from the beginning of providing the service

Relevant Markets Definition

- defining markets at two levels

   o **retail level**

   o **wholesale level**

- demand for wholesale broadband access services is derived directly from the retail level

- markets definition at retail level - defining services that are considered to be substitutes and constitute same relevant market

- markets definition at wholesale level - defining services that are considered to be substitutes and constitute same relevant market

Relevant market at retail level

- broadband access at retail level in Croatia is available by following technologies:

  ✓ ADSL with direct network connection

  ✓ ADSL via unbundled local loop

  ✓ access via mobile networks

  ✓ access via cable networks

  ✓ FWA via WiMAX technology

  ✓ access via fibre-optic cables

  ✓ access via leased lines

  ✓ access via satellite connections

- demand substitutability analysis - to define services that are substitutes upon what they are part of the same relevant retail market.

Relevant market at retail level

Technologies had to meet following criteria in order to be included in the retail market definition :

- providing permanent Internet access

- technologies have to be substitutes in terms of prices;

- technologies have to be substitutes in terms of download speeds;

- service is charged on the basis of the quantity of transmitted data,

  and not on the basis of duration.

Relevant market at retail level

Following services are considered as parts of the same retail market :

- ADSL access via copper pair

  - ADSL with direct connection to HT network

  - ADSL with direct connection to other operators' network

  - ADSL technology via unbundled local loop

- cable access

Relevant markets at wholesale level

According to Commission recommendation and Ordinance on the conditions and manner of determining relevant markets in telecommunications, regarding broadband access, following markets are defined at wholesale level:

- Unbundled access, which also includes the shared access, to the local loop for provision of voice services and broadband access (Market 11)

- Broadband access, also including bitstream access, which renders a possible two-way communication (Market 12)

Relevant markets at wholesale level

LADDER OF INVESTMENT

Investment	Infrastructure	Wholesale services
Own access network		------------------------
Complete customer relationship		Full unbundling
DSLAM, splitter etc.		Shared access
VoIP, IT		Bitstream access
Customer service, billing, marketing, itd.		Resale
	Services	

Wholesale services and own costs analysis

Full unbundled access

access

RUO

Unbundled access to the local loop	Monthly charge

**Collocation costs
Charges on one-time basis**

Costs of the alternative operator

DSLAM of the alternative operator

backhaul

core network

Backhaul network of the alternative operator

Core network of the alternative operator

other costs

Selling costs

Marketing costs

Internet costs

CPE costs

Retail level

HT's public voice service

**+
DSL access offer**

Wholesale services and own costs analysis

Shared access	Bitstream access	DSL access resale

access

RUO

Shared access to the local loop — **Monthly charge**

Collocation costs
Charges on one-time basis

Costs of the alternative operator

DSLAM of the alternative operator

backhaul

Backhaul network of the alternative operator

core network

Core network of the alternative operator

other costs

Selling costs

Marketing costs

Internet costs

CPE costs

Bitstream offer

Bitstream access

Charge on one-time basis

Backhaul

Costs of the alternative operator

Core network of the alternative operator

Selling costs

Marketing costs

Internet costs

CPE costs

Resale offer

DSL access resale

Charge on one-time basis

Costs of the alternative operator

Selling costs

Marketing costs

Internet costs

CPE costs

Retail level

HT's offer for DSL access

Market for broadband access, also including bistream access, which renders a possible two-way communication

- market definition procedure – 2 dimensions have to be defined:

    - service dimension

    - geographical dimension

- to define relevant market in service dimension – demand substitutability and offer substitutability analysis should be conducted in order to define services that are substitutes upon what they are part of the same relevant market

- basic service in relevant market in Croatia: ADSL transport service offered by HT
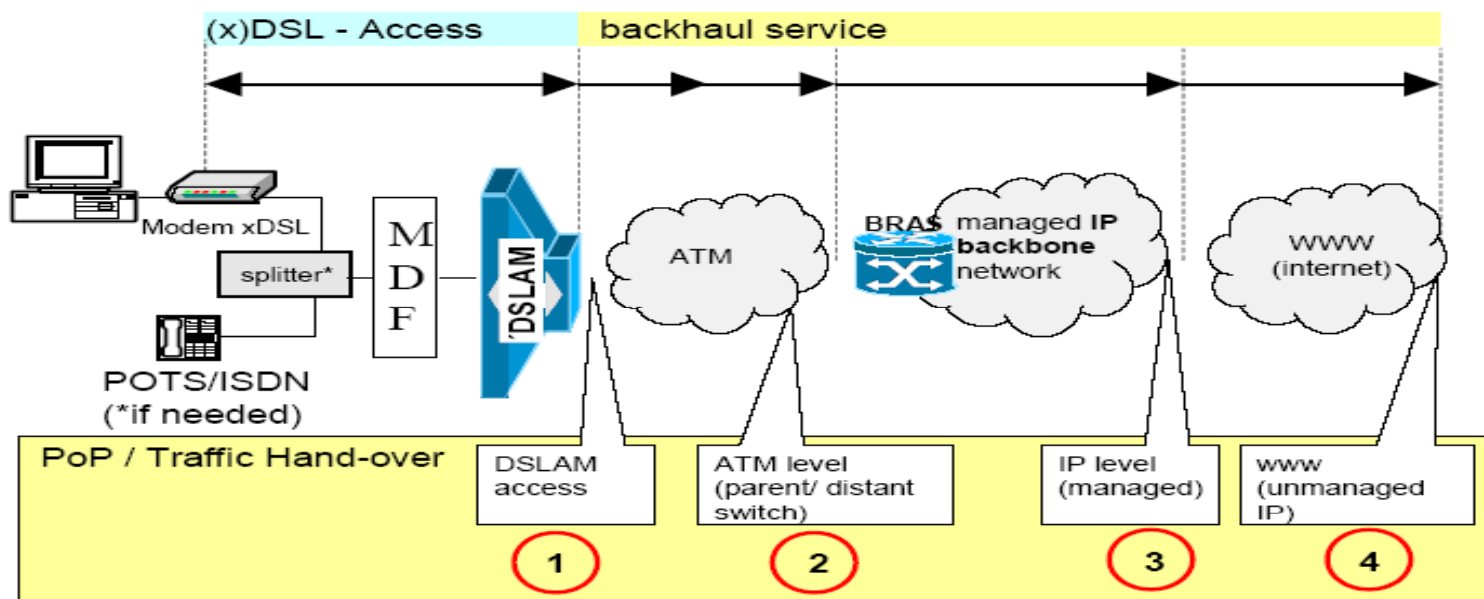
Relevant market definition in service dimension

Demand substitutability

- establishing whether **the wholesale cable access** should be included in the same wholesale market

- establishing whether **the ADSL access with the direct connection to other ISPs' own network** should be included in the same wholesale market

- establishing whether **self-supplied ADSL transport service and self-supplied ADSL access service** should be included in the same wholesale market

- establishing whether **LLU and ADSL transport service** should be included in the same wholesale market

Supply substitutability

- possibility that alternative operators offer substitute service in short period

Relevant market definition in service dimension

✓ ADSL transport service with access at IP level

✓ ADSL transport service – self supply

✓ ADSL access service – self supply

Relevant market definition in geographical dimension

• all areas where certain service providers provide services under the same conditions

• all areas with competition conditions of the same kind

Analysis result:

  ✓ relevant services are offered in the entire territory of Croatia

  ✓ relevant services are offered to service providers under the same conditions

  ✓ relevant market is **national** in scope - **entire territory of Croatia**

Market for unbundled access, which also includes the shared access, to the local loop for provision of voice services and broadband access

- market definition procedure – 2 dimensions have to be defined:

  - service dimension

  - geographical dimension

- to define relevant market in service dimension – demand substitutability and offer substitutability analysis should be conducted in order to define services that are substitutes upon what they are part of the same relevant market

- basic service in relevant market in Croatia: LLU offered by HT

  - incumbent HT - owner of the public telephone network with 1.680.455 active telephone connections

  - geographical accessibility of telephone connections and local loop is very wide since HT, as a provider of the universal telecommunication service, is obliged to offer the network access to all users

Relevant market definition in service dimension

Demand substitutability

- establishing whether **the wholesale cable access** should be included in the same wholesale market

- establishing whether **LLU and ADSL transport service** should be included in the same wholesale market

Supply substitutability

- possibility that alternative operators offer substitute service in short period

Relevant market definition in service dimension

✓ full unbundled access to the local loop

✓ shared access to the local loop

✓ collocation

Relevant market definition in geographical dimension

• all areas where certain service providers provide services under the same conditions

• all areas with competition conditions of the same kind

Analysis result:

  ✓ relevant services are offered in the entire territory of Croatia

  ✓ relevant services are offered to service providers under the same conditions

  ✓ relevant market is **national** in scope - **entire territory of Croatia**

Relevant wholesale markets analysis

✓ establish operators' market shares

✓ designate SMP operators according to market share and other criteria

✓ impose remedie(s) on SMP operator(s)

Analysis of Market for broadband access, also including bitstream access, which renders a possible two-way communication

✓ HT holds market share of 100%

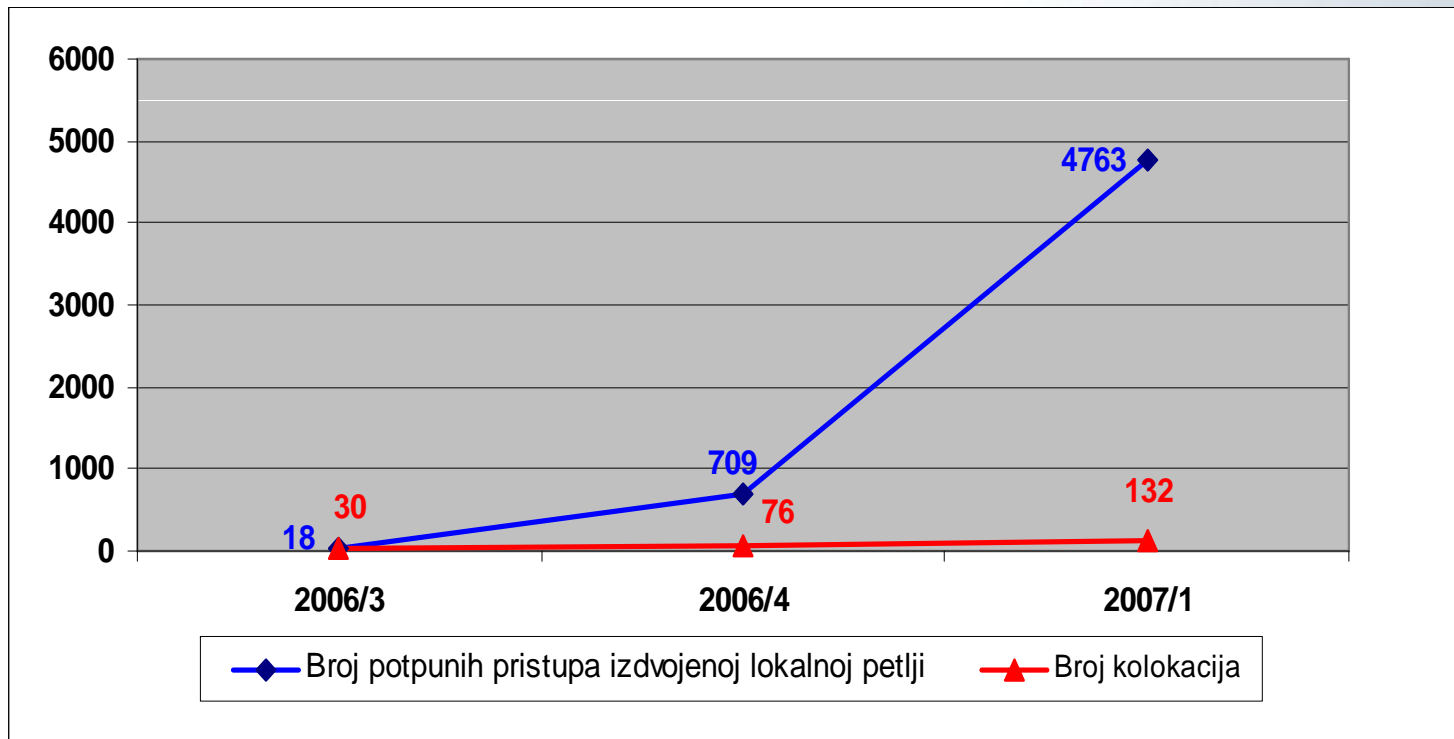**HT –number of connections via ADSL access**
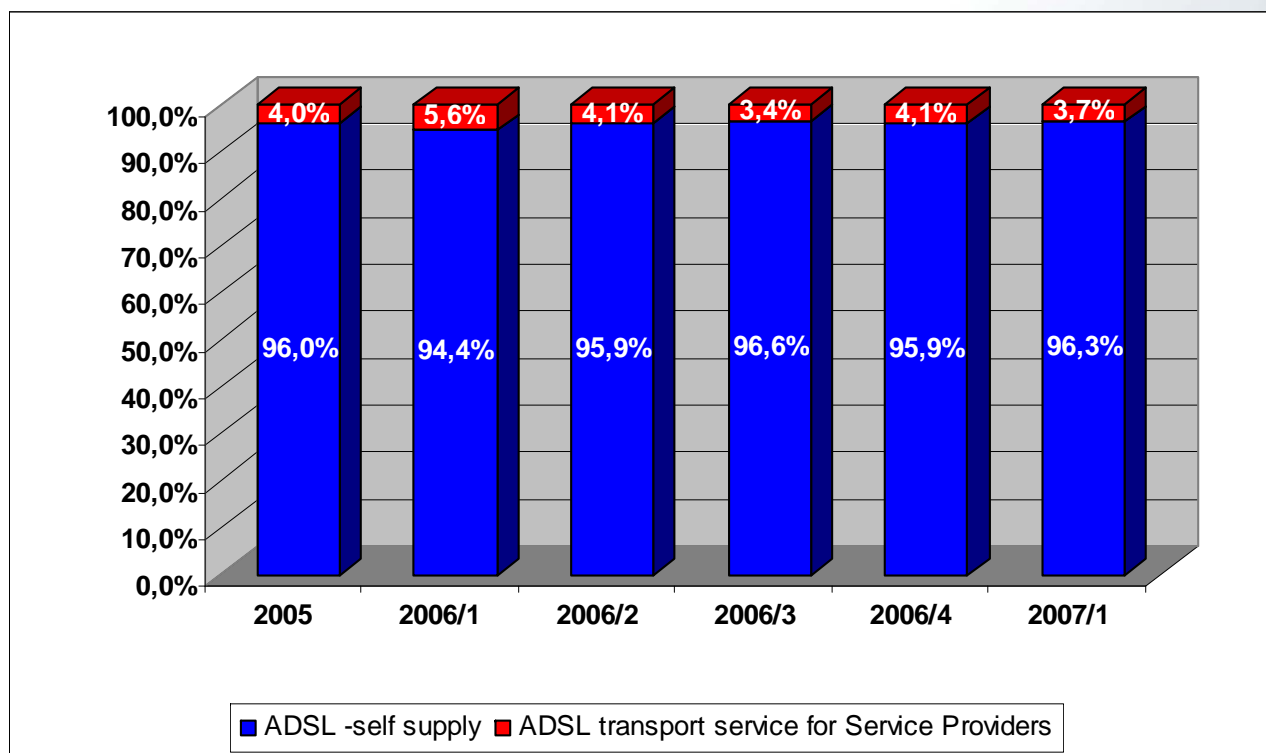
Source: Questionnaires for Market 12

Analysis of Market for unbundled access, which also includes the shared access, to the local loop for provision of voice services and broadband access

✓ HT holds market share of 100%

Total number of full unbundled accesses to the local loop and collocations

Public Consultation

- from 19th July 2007 till 24th August 2007 on CTA's website

- 3 submissions to the Consultations

- summarized comments and CTA's position on them were embedded into Analysis

Broadband penetration rate