

# **New technology – New business opportunities**

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CMD, 7 June 2004

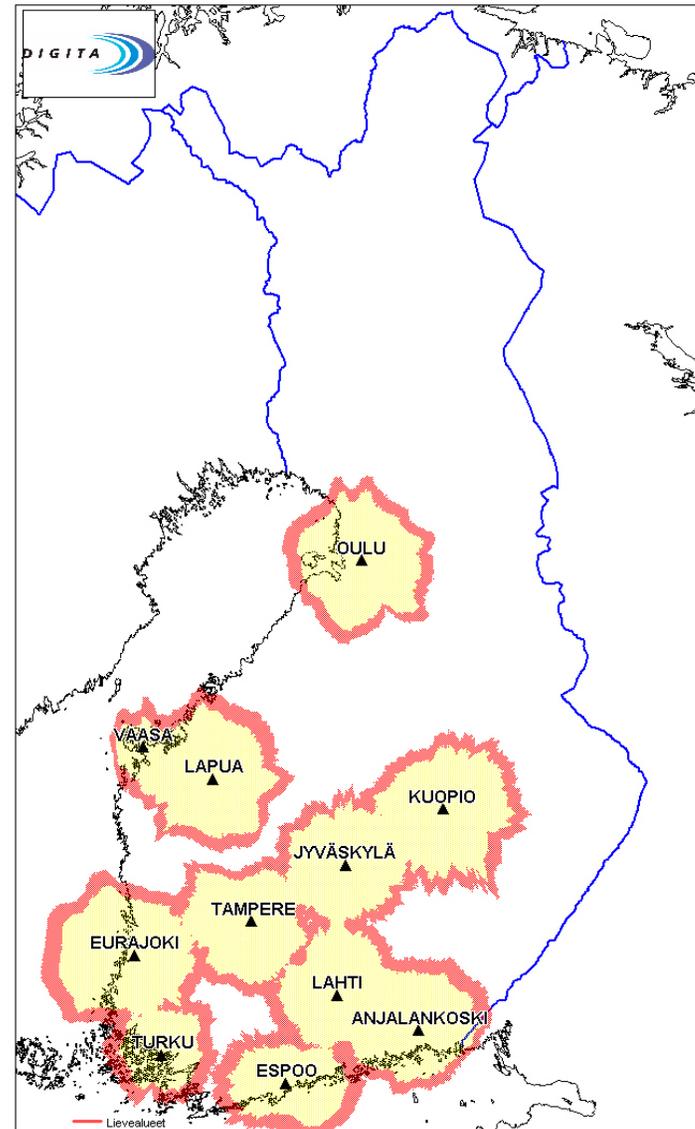


# Digital terrestrial television

Revenue increases  
Cost savings  
New services

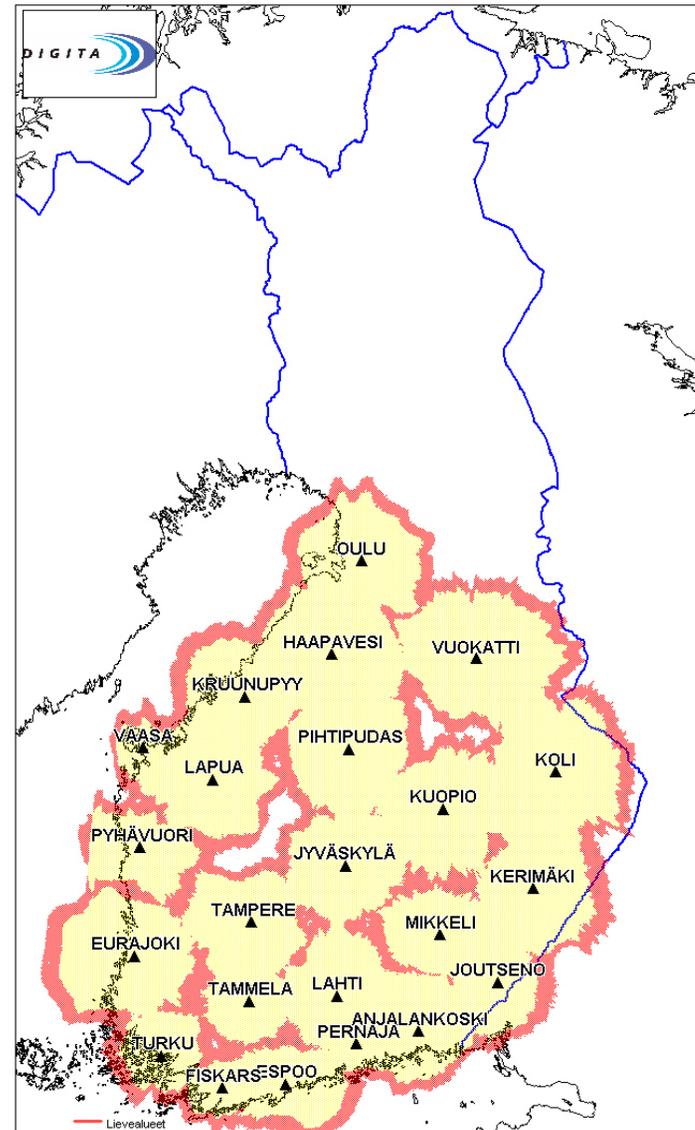
# Digital transmission network

- Transmission network: phase 1
  - operational since autumn 2001
  - 11 transmitters
  - 74% coverage of population



# Digital transmission network

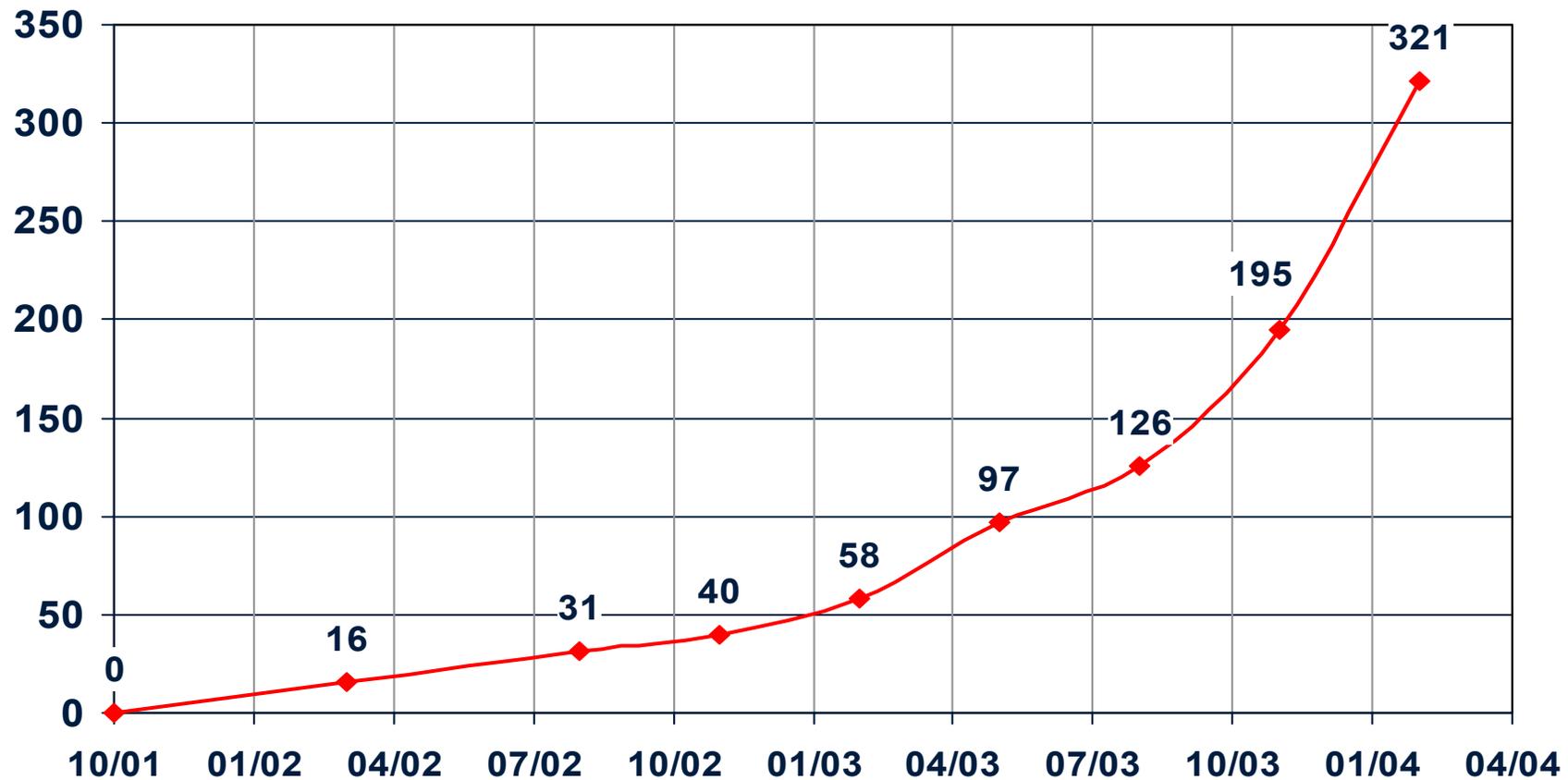
- Transmission network: phase 1
  - operational since autumn 2001
  - 11 transmitters
  - 74% coverage of population
- Transmission network: phase 2
  - operational in August 2004
  - 23 transmitters
  - 94% coverage of population





# Digital set-top-boxes in homes

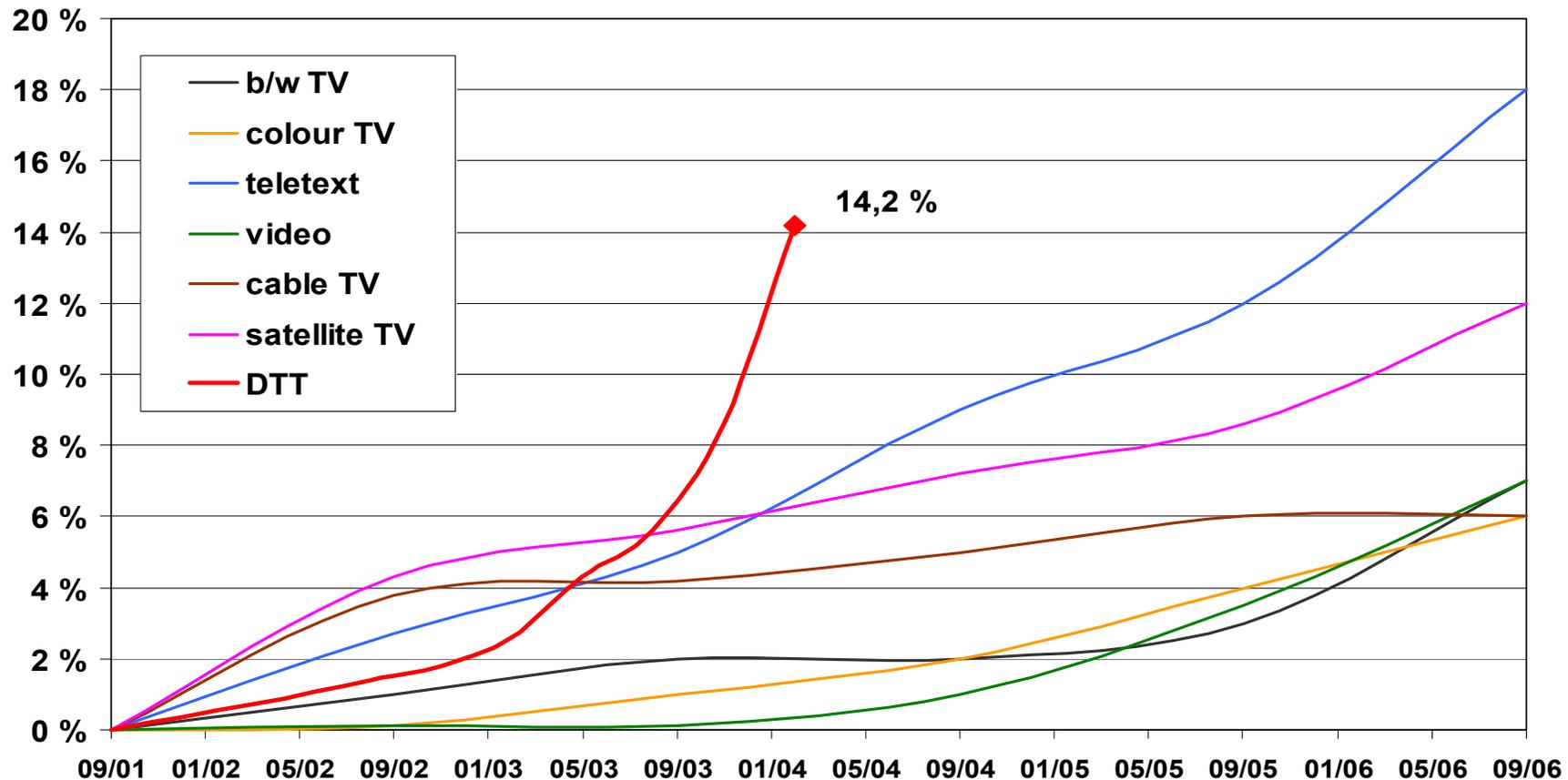
Terrestrial & CATV, 1000 boxes



Source:  
Finnpanel

# Digital terrestrial television

## Penetration development



Sources:  
Yleisradio,  
Finnpanel

# The effects of full digitalization

## for Nelonen 1/2

- Nelonen's coverage of the population will raise from the present 85% to 99.9%
  - 17.5% more viewers increase sales revenues
- Transmission capacity is available for two parallel signals: Nelonen and Nelonen Plus
  - flexibility in e.g. live transmissions increase viewing
  - additional programming increase advertising time
- In spite of more coverage and more capacity the transmission costs will decrease
  - annual savings >€ 1.2 million after analogue shut-down

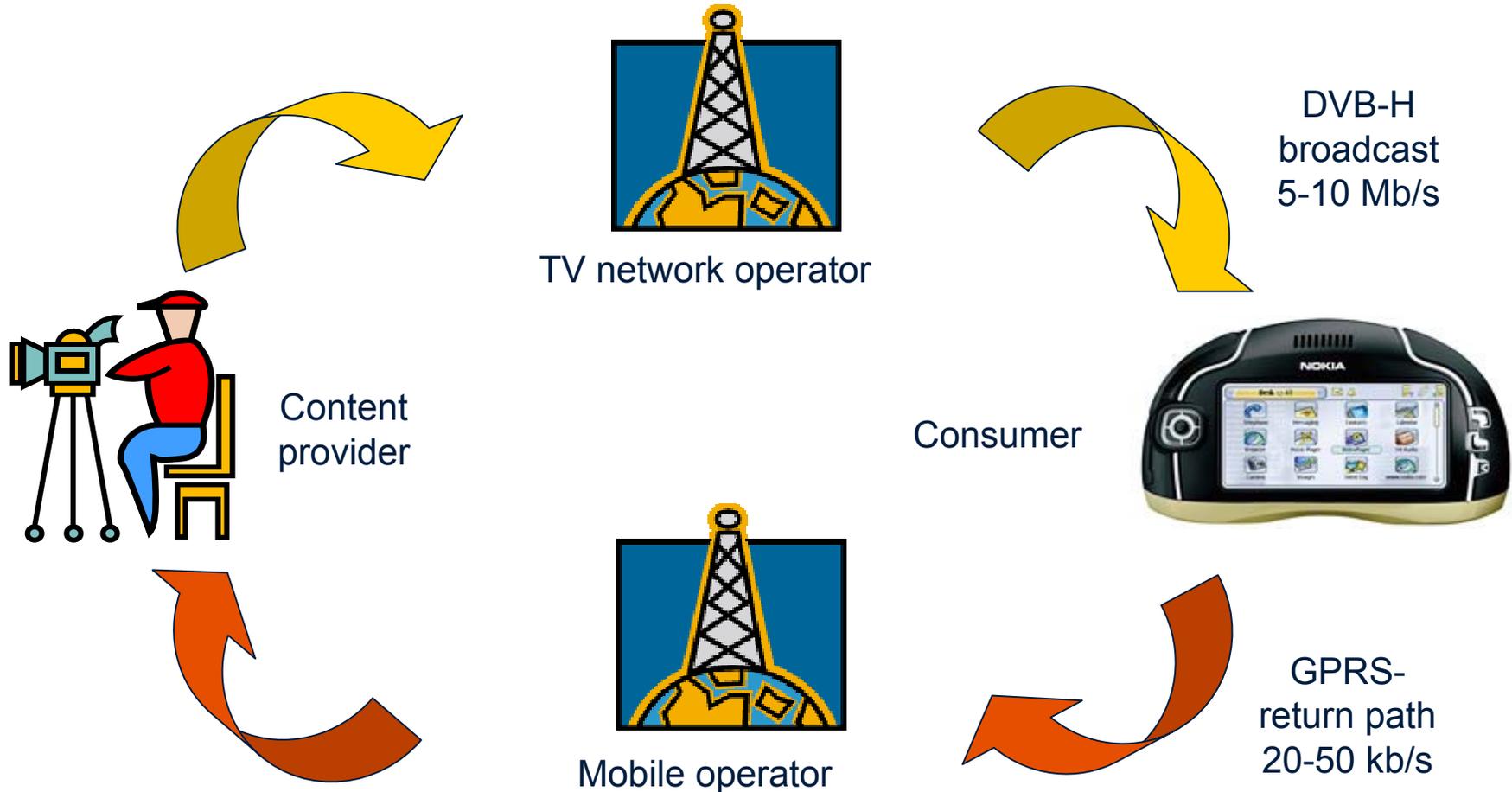
# The effects of full digitalization

## for Nelonen 2/2

- Nelonen's license fee is gradually decreasing and is totally removed after the analogue shut-down
  - annual saving ~ € 6 million compared to year 2004
- Nelonen will have a full regional advertising system with 10 regions instead of the present 3 regions
  - increased sales revenues from regional advertising
- New digital services create opportunities for new revenue streams
  - e.g. advertising in the program guide and teletext

# IPDC (Internet Protocol DataCast)

Digital television to mobile devices





## **Broadband cable**

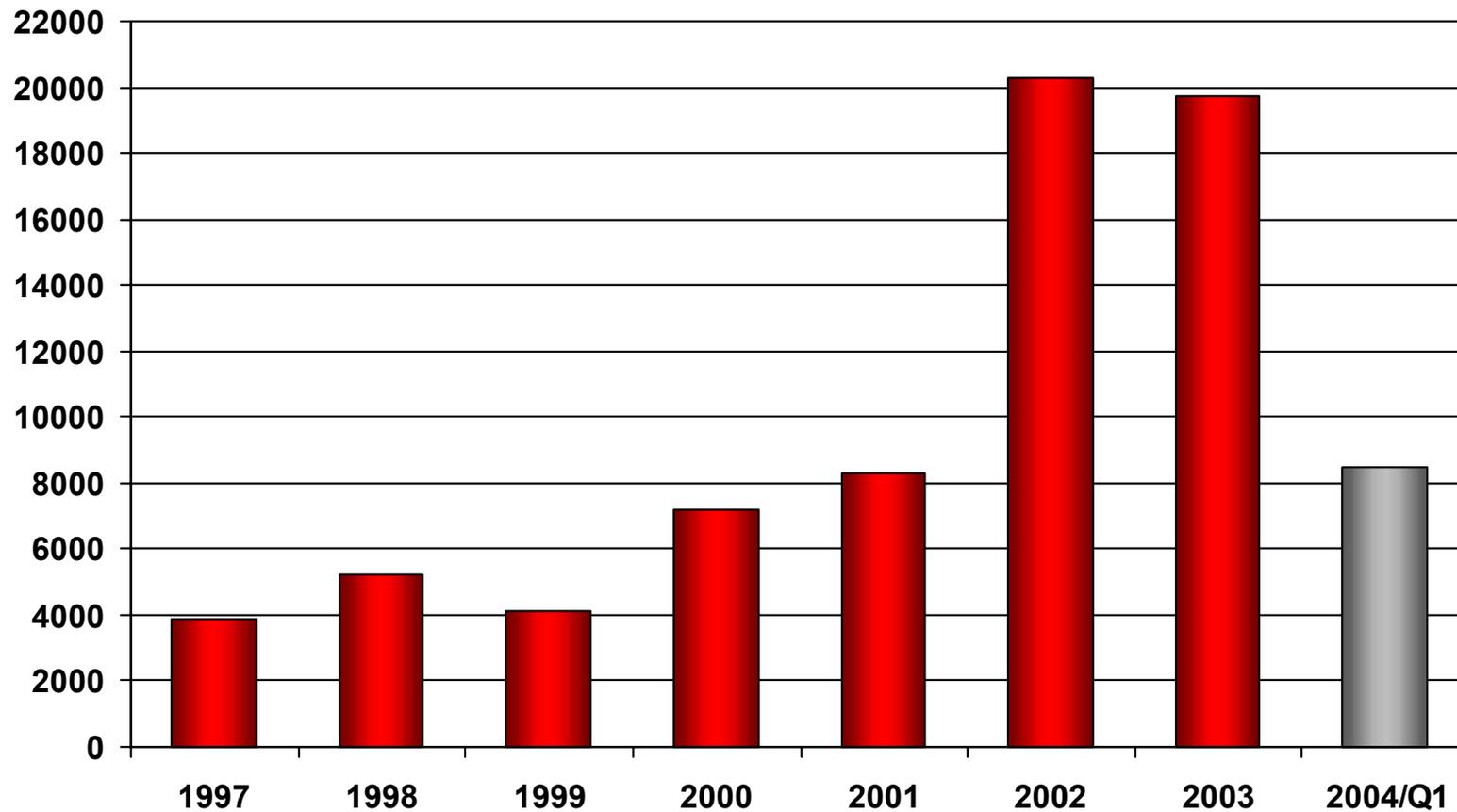
New business areas

Bundling of services

Increased revenue per customer

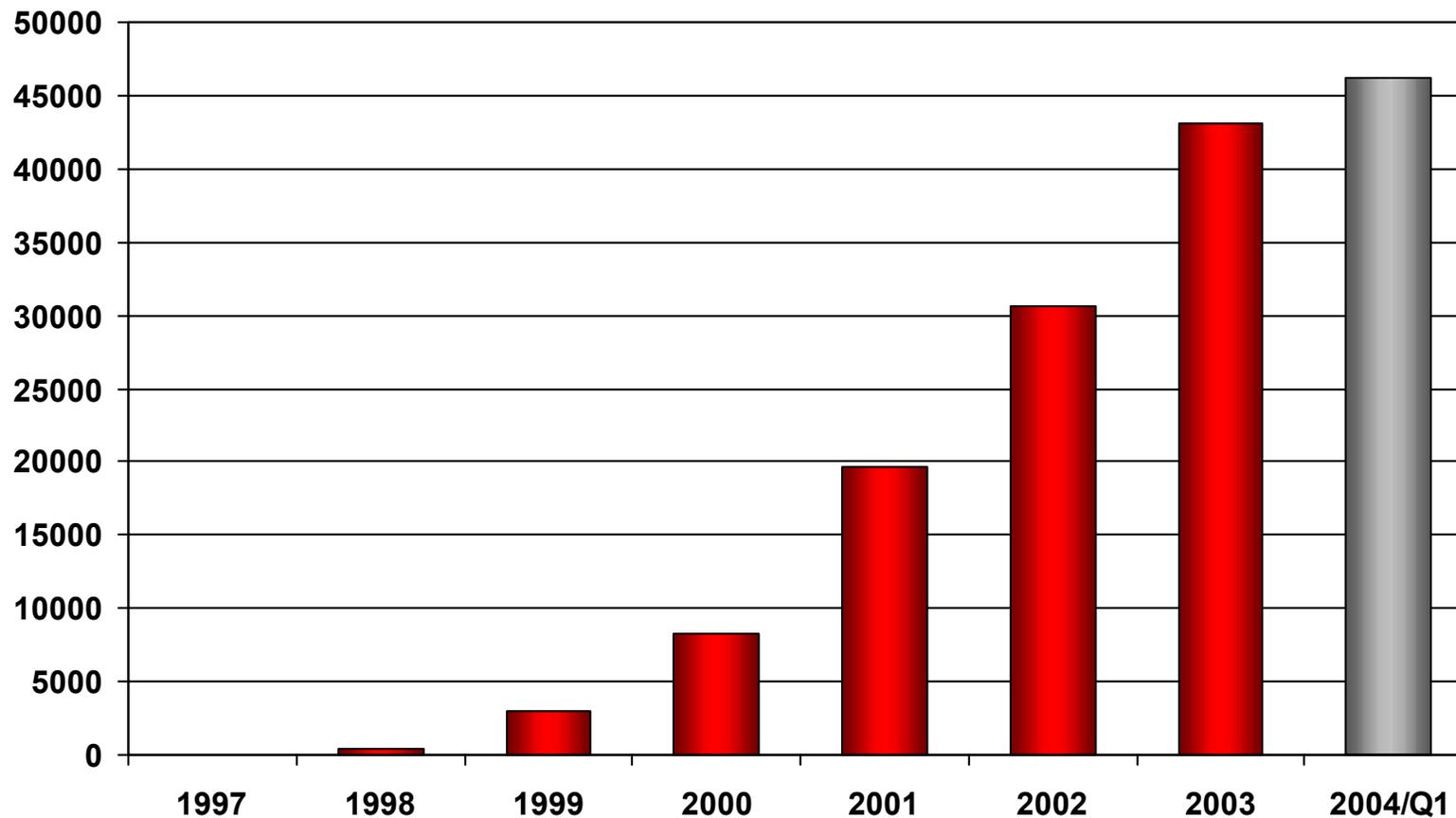
# Helsinki Television

## New connected households



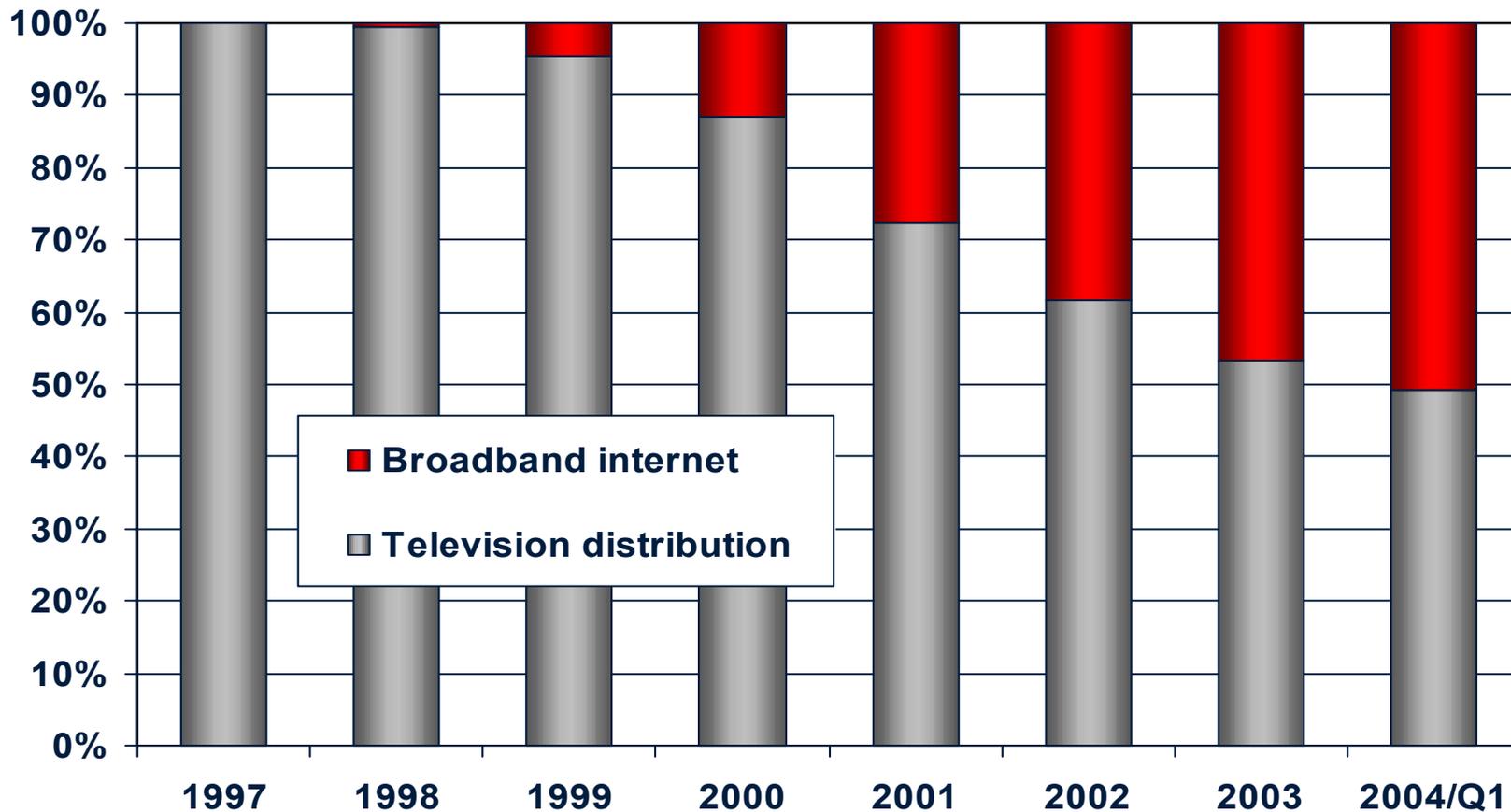
# Helsinki Television

## Broadband internet customers



# Helsinki Television

## Income structure



# New potential cable TV businesses **1/2**

- VoD – Video on Demand
  - Selling of individual premium programmes (movies, sports, ...) either over cable TV network or broadband connection
- VoIP – Voice over IP
  - Fixed price telephone service utilising the (existing) broadband internet connection and substituting the fixed telephone line
- ADSL – Broadband over telephone lines
  - Extending cable TV company's broadband service to cover all homes in the area (with limited additional investment or cost)

# New potential cable TV businesses **2/2**

- WNE - Wireless Network Extension
  - Wireless extension of the cable network to expand the area in which the broadband internet service can be offered
- “Hot Spots”
  - Wireless connection to the broadband internet service in selected public places such as hotels, airports, cafes, ...
- HomeWLAN
  - Wireless connection from different devices in the home to the broadband internet service
  - Wireless VoIP using mobile phones with WLAN capabilities

# Home communications

## Expanding role of the cable TV operator



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”Back to the Future”