

FTTH Council Europe

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Agenda

FTTH-Council Europe

FTTH Worldwide

FTTH in Europe

FTTH Market Forecast

FTTH and Sustainable Development

FTTH-Council Europe

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The Organization

- Founded in 2004, non-profit-Organization
- 80 Members
- Members: Manufacturers, Construction & Engineering Companies, NPO, Academia

The Idea

- Accelerate FTTH deployment by education and promotion, to enhance Quality of life in Europe

The Mission

- Ensure that **all network investors** choose FTTH, resulting in a **10 fold** increase of new connections in the coming **3-5 years**

FTTH Council Europe Members

3M Telecommunications - Acome - ADC KRONE - AFL Europe - Agilent Technologies - Aksh Optifibre - Alcatel-Lucent - Allied Telesyn - BAM Infratechnik - Bechtel - BKtel Communications - Broadlight - Cable Telecommunications Training Services - Catway Lan System - Channel - Cisco Systems - Comptoir des Signaux - Corning - Dantex Plastrør - Dätwyler Cables - DKT - Draka Comteq - DSM Desotech - Duraline - ECI Telecom - EMC Electronic Media Communication - Emtelle - Ericsson - Exfo Europe - Fibox Oy - Fibre Fab - Fraunhofer Institut - Freescale Semiconductor - Gabo Systemtechnik - Genexis - Gerald Glaise - GM Plast - GNS - Hellermann Tyton - Hitachi Communication Technologies - Huber+Suhner - ICTL Optical Links - Ignis Photonyx - IMC Fachhochschule Krems - Intel - Iskratel - JDSU - Kabel-X - Kathrein-Werke - LEONI NBG Fiber Optics - Mitsubishi Electric - Motorola - Mulder-Hardenberg - NetAdmin Systems - Nexans - OFS - Optral - PacketFront - Plumettaz - Preformed Line Products - Prysmian - RDM - Senko - Nokia Siemens - Silec Cable - Sterlite Optical Technologies - Telec International - Teleste - Tilgin - Triax - TVC UK Holding - Twentsche Kabelfabriek - Tyco Electronics - Uponor/Radius - Volex Europe - Volker Wessels Telecom - Wavin - World Wide Packets - ZTE Corporation

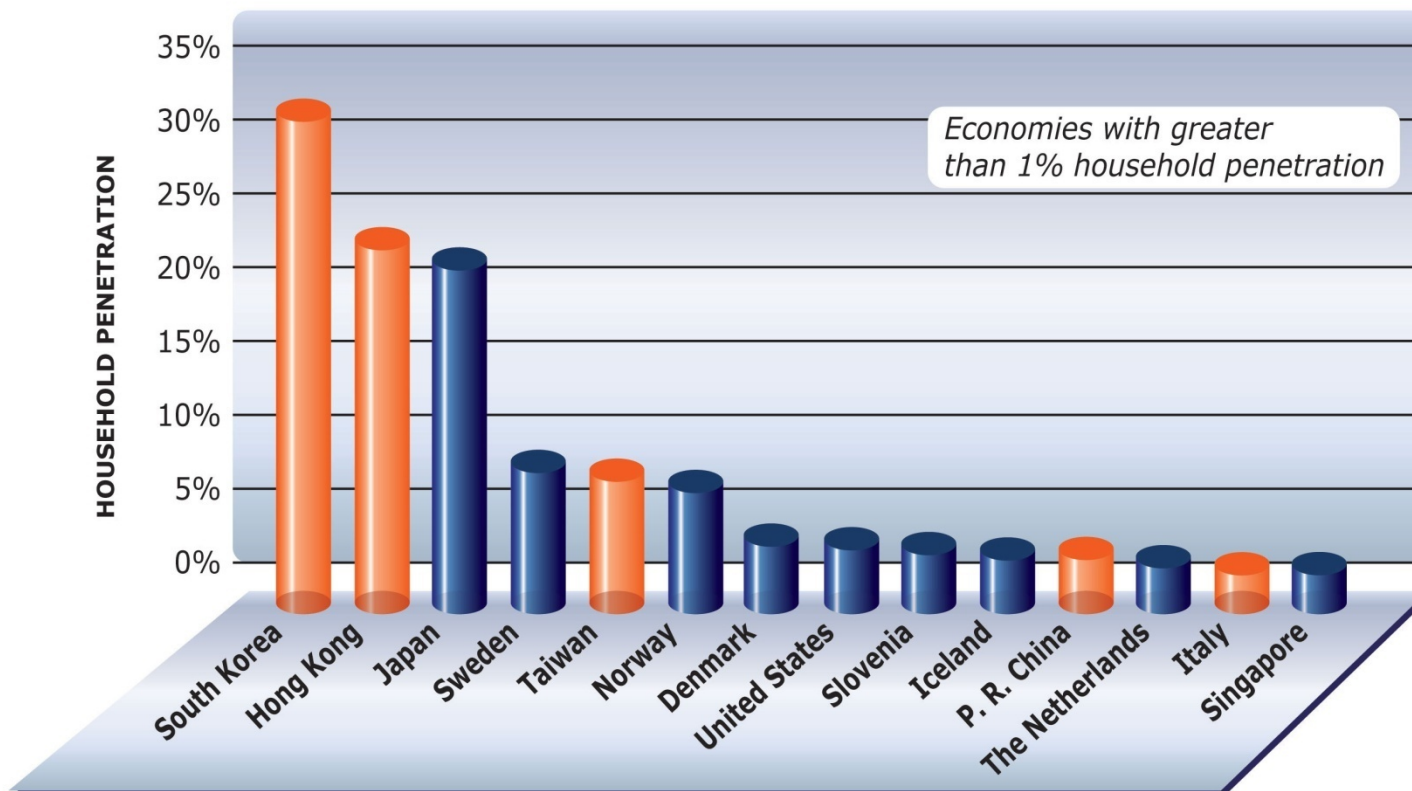
FTTH-Worldwide

Global Ranking

- Joint project of the three FTTH-Councils worldwide
- Based on market-research of the councils, using the FTTH-Council FTTH-Definitions Document
- Ranking: Percentage of households in a country/economy that have a FTTH-connection (subscribers)
- All countries with more than 1% FTTH-penetrations are included

Global FTTH/FTTB Ranking

Economies with the Highest Penetration of Fiber-to-the-Home / Building+LAN



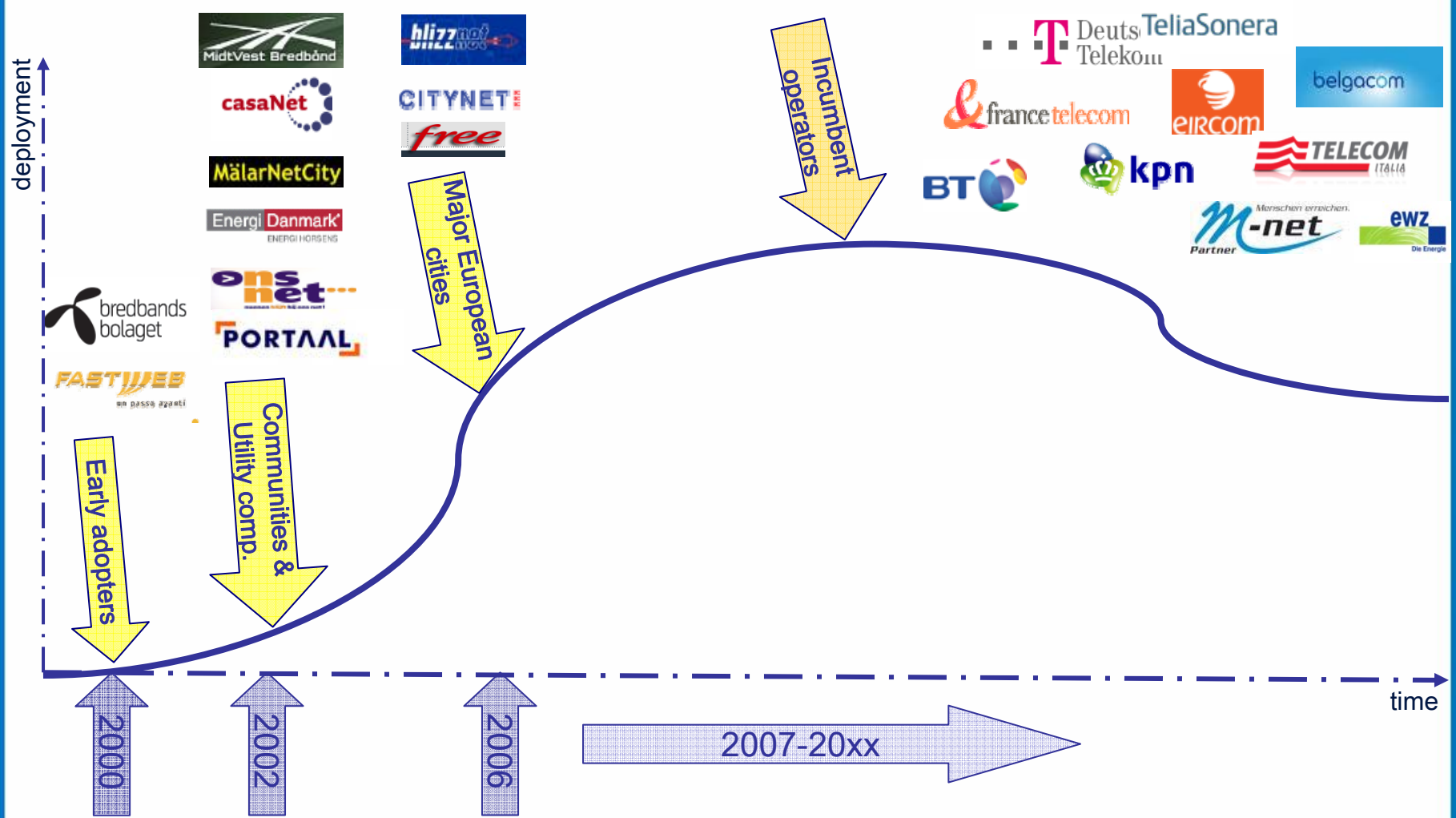
Year-End 2007 Ranking

Source: Fiber-to-the-Home Council
Feb 08

- Economies where majority architecture is **Fiber-to-the-Home**
- Economies where majority architecture is **Fiber-to-the-Building+LAN**

FTTH in Europe

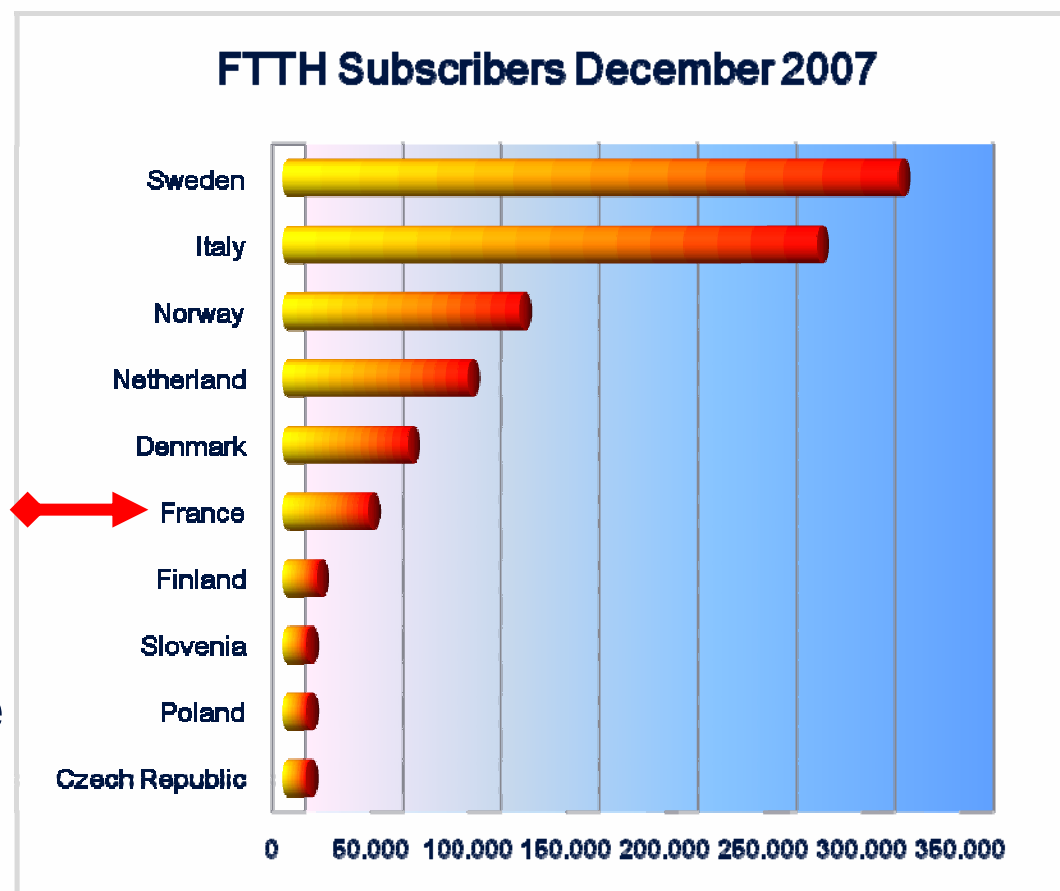
FTTH WW development Europe



FTTH in Europe

Status December 2007:

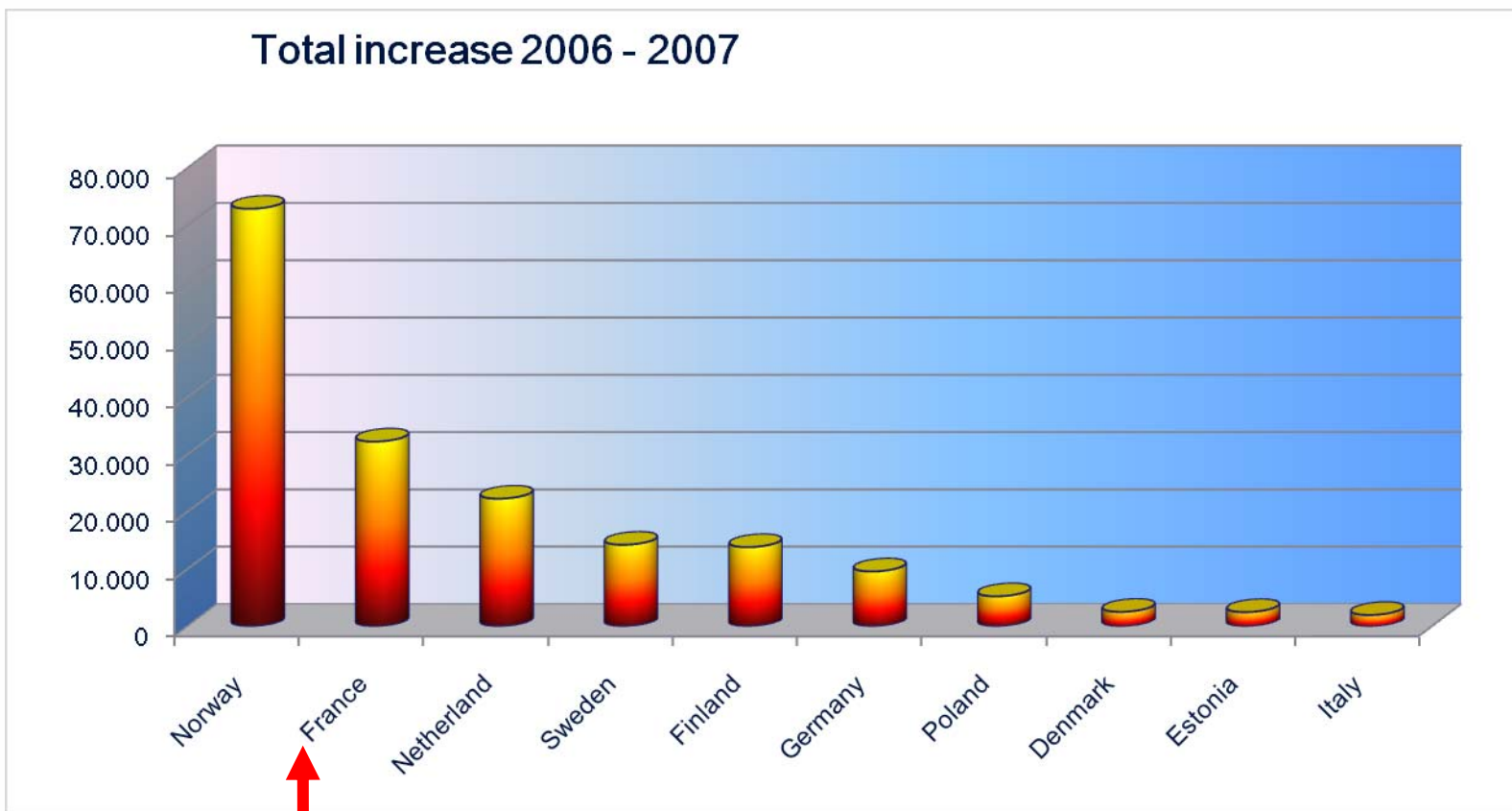
- Over 1 Mio. subscribers, 5 Mio. Homes passed
- 80% of subscribers in just four countries
- Majority of projects are driven by municipalities and utility-companies



Source: FTTH-Council Europe/IDATE 2008

FTTH in Europe

Total increase 2006 - 2007



Source: FTTH-Council Europe/IDATE 2008

FTTH in Europe

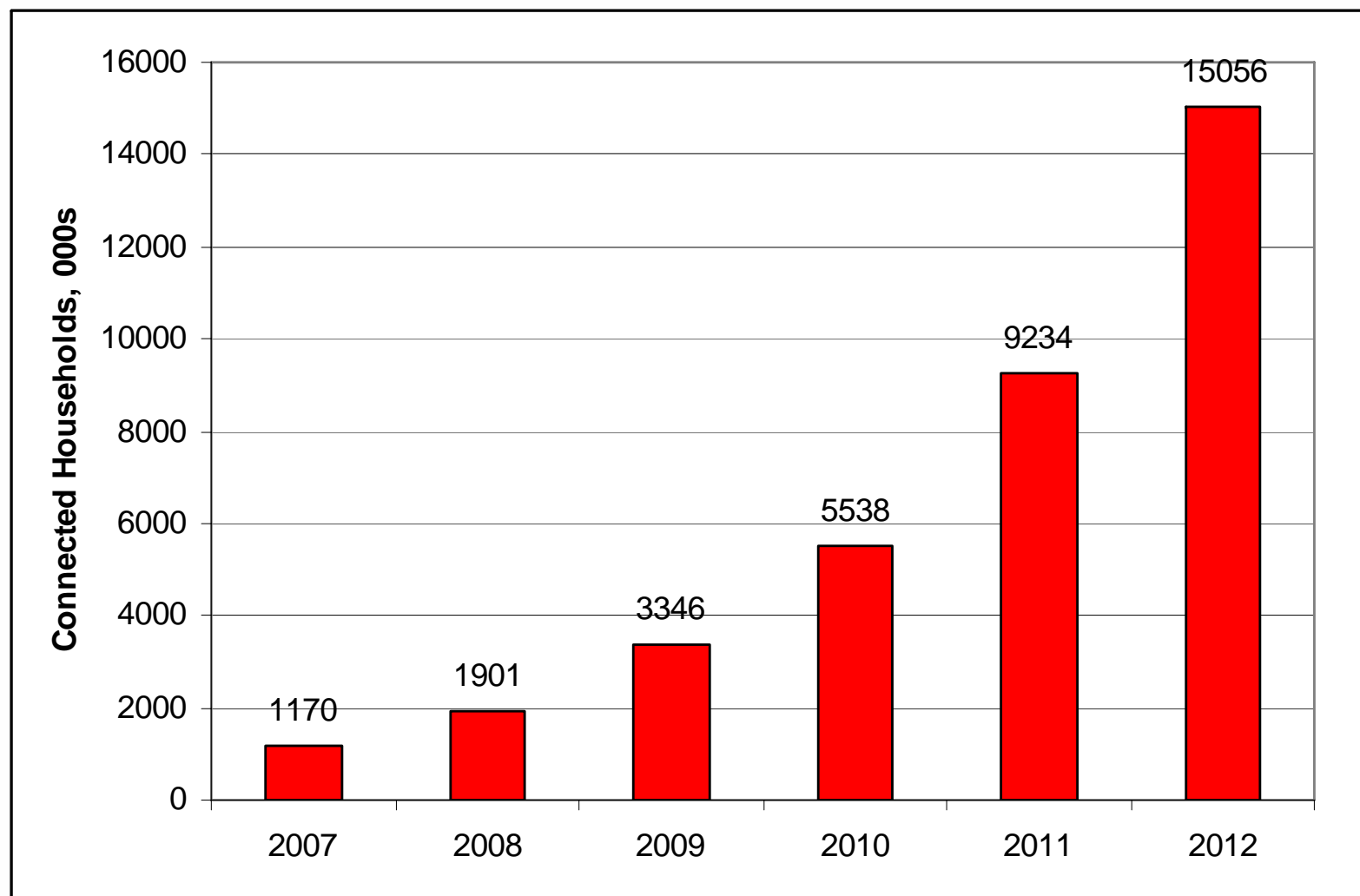
2008: Europe moves forward

- France: major deployments in the big cities
- Netherlands: continue to deploy fibre
- Denmark: power-utility-companies deploy fibre
- Switzerland: Zurich starts FTTH-project
- Germany: municipalities and power-utility-companies start to deploy FTTH
- Slovenia: incumbent deploys FTTH in whole country – “newcomer” in global ranking
- Europe: in the majority of the EU-countries FTTH is still not happening!



Market Forecast

European FTTH Forecast



Source: FTTH-Council Europe/Heavy Reading, 2008

FTTH and Sustainable Development

FTTH & Sustainable development

How FTTH participates to Sustainable Development taking into account networks life cycle: sourcing, implementation, consumption, recycling?

Mission

1. Quantify the Sustainable Development Impact looking at European cases
2. Compare the environmental impact of a network to associated benefits from FTTH services

Hypothesis of the study

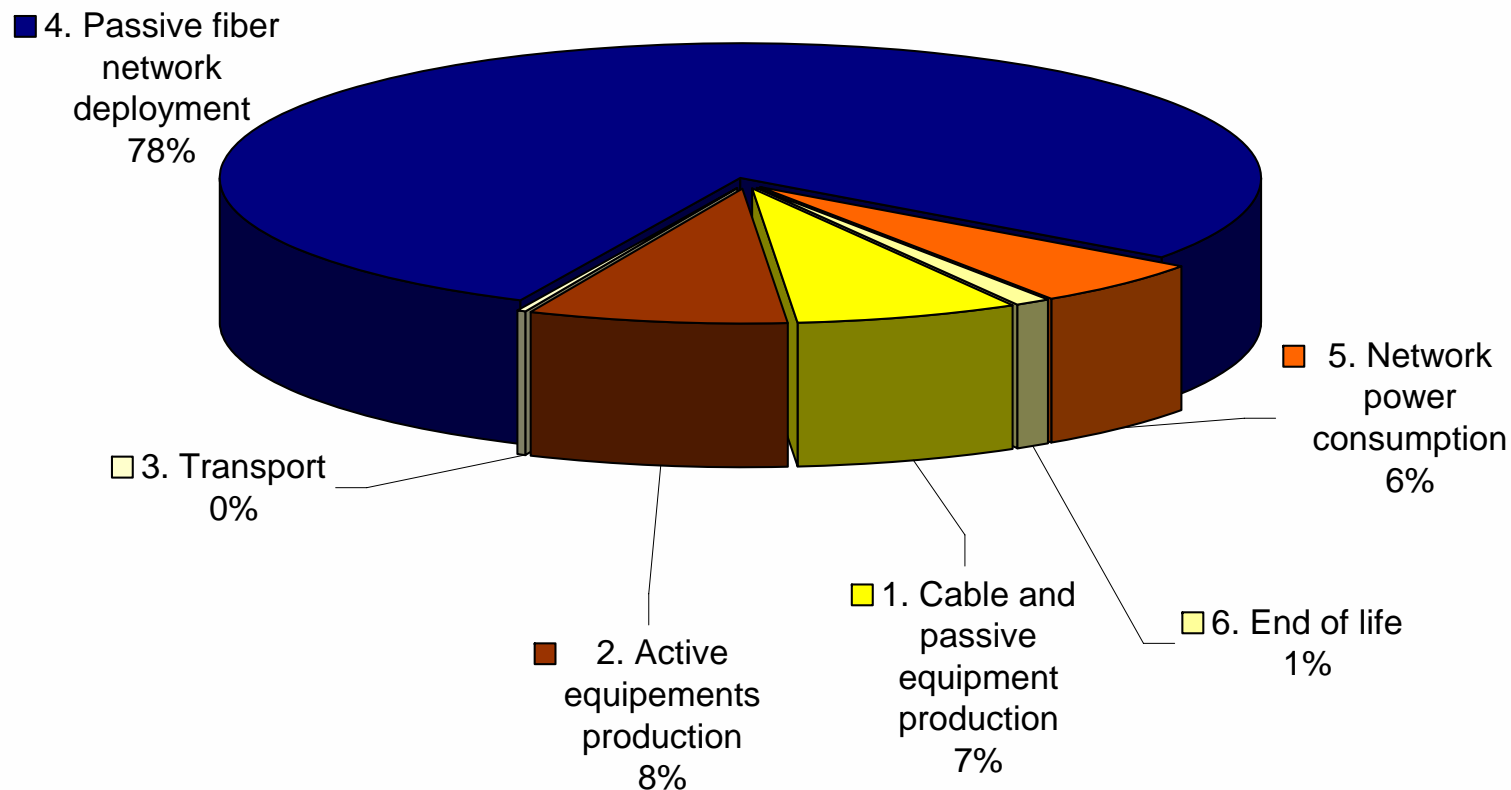


- ✓ Use of Life Cycle Assessment (LCA) and ISO 14040 standard*
- ✓ Data sources and modeling provided by the Council (market studies, members)
- ✓ FTTH network deployment
 - ✓ 3 scenarios: urban dense, urban wide and rural areas.
 - ✓ 4 techniques: existing ducts or urban sewage, traditional trench, micro-trench, aerial hanging
 - ✓ Life span of the FTTH passive infrastructures was chosen as 50 years
- ❑ Selected services
 1. Tele-work
 2. Telemedicine and home assistance
- ❑ From the current trends (2010-2011)
 - ❑ 10% of the working population could tele-work 3 days per week
 - ❑ 20% of the population 75 years old and over could benefit from home

Analysis of results & main outcomes

- As a main quantitative finding, **the environmental impact of the deployment of a typical FTTH network will be positive in less than 15 years considering only the three selected services**
- The use of the network (power consumption) represents only 6% of the total impact
- Additional either existing or developing applications will further emphasize these results
- Beyond its environmental-friendly aspects, FTTH solutions offer serious additional social and economical benefits

Relative contributions of the different FTTH network deployment phases to climate change potential impacts



- Regarding the potential greenhouse gas impact, the deployment phase is predominant and represents approximately 80% of the total impact of FTTH network
- In particular, the key impacting parameter over the carbon emissions is the length of new ducts (meters) per home passed

Normation

- For the first 15 years of network implementation, greenhouse gas emission savings per user are of 330 kg approximately. This is equivalent to a car travelling 2,000 kilometers.
- For the next 15years 780kg.....4,600km
- Consequently, sustainability of FTTH solutions will be demonstrated as:
 - user experience is growing
 - bottlenecks such as network access are removed
- FTTH network solutions represent a responsible investment
- <http://www.ftthcouncil.eu/resources/newsroom/studies> & analysts reports/studies

“FTTH networks enable society changes for a sustainable future”...

Just imagine!

Thank you for your attention!

