

# Creating a brighter future

Webinar:

European FTTH Forecast, 2012-2017  
Behind the Numbers

# FTTH Council Europe

**Our Vision: A sustainable future enabled by Fibre to the Home**

## **Our Mission**

- To accelerate FTTH adoption through information and promotion in order to enhance the quality of life, contribute to a better environment and increased competitiveness

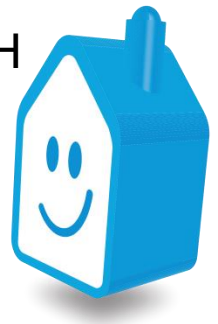
## **Organisation**

- Founded in 2004, non-profit industry organisation
- More than 150 member companies



# Webinar

- 20-25 minutes presentation
- 15-20 minutes Q&A
- Please write your questions in the questions box of the webinar system
- Relevant questions that are not answered during the webinar will be answered by email
- The slides will be available for download after the webinar
- The webinar is recorded and can be viewed as video-stream afterwards. The video will be available on the website of the FTTH Council Europe within one week
- Slides and information about the availability will be sent to registered attendees by email



# European FTTH Forecast, 2012-2017

Moderator:

**Špela Kern**

Project Manager

Market Intelligence Committee

Presenter:

**Graham Finnie**

Chief Analyst

Heavy Reading

# European FTTH Forecast, 2012-2017: Behind the Numbers

**Graham Finnie, Chief Analyst Heavy Reading**

Presentation for the FTTH Council Europe  
21 May, 2013

[www.heavyreading.com](http://www.heavyreading.com)

[finnie@heavyreading.com](mailto:finnie@heavyreading.com)

# Introduction

- **Based on individual analyses of 21 countries, and brief reviews of a further 22 countries**
- **Covers a total of just over 310 million households, 197 million in the EU and 105 million outside the EU**
- **Overall forecast up on last year**
  - Strong progress, and updated information on current penetration, in Bulgaria, Finland, Russia and Sweden, among others
  - Some major incumbent deployments, e.g. In Portugal and Spain, on track
  - Steady progress in others, including Denmark and the Netherlands
  - Case for FTTH, especially on cost, but also on apps, continues to improve
- **Gap between best and worst performers is widening**
  - Very slow progress and lack of commitment in major Western European countries including Germany, Italy and the UK, as well as smaller territories such as Belgium, Austria and Switzerland, mean that these countries are an estimated 5-10 years behind the best
  - Though there are exceptions, non-EU doing better than EU, in general: forecast for EU area is actually down on the previous year.

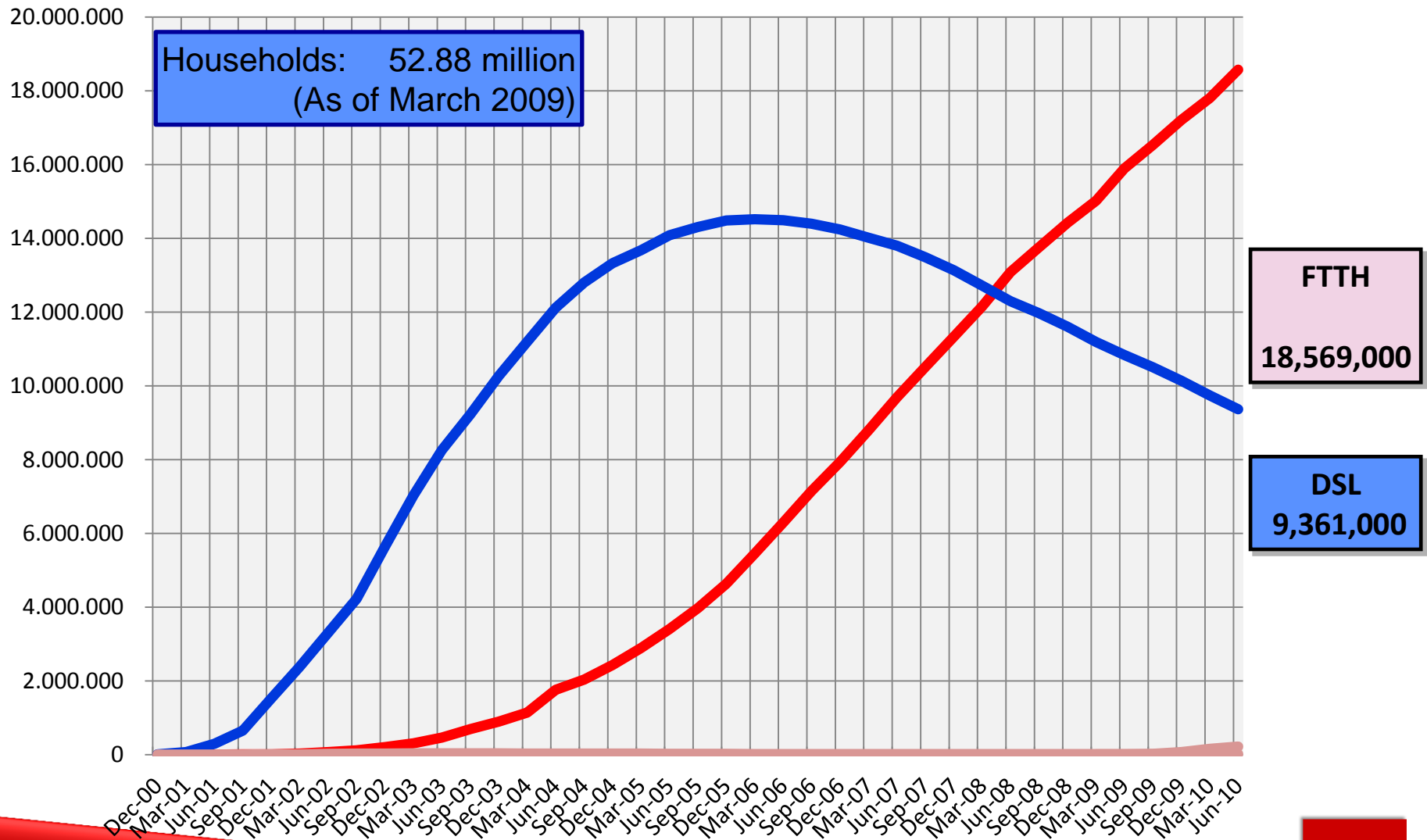
## A Very Difficult Forecast Because...

- It covers 43 countries, and no two are the same
- There are often multiple providers per country
- There are many variables that affect market take-up
- We are at the very early “emergent” stage in most countries, when forecasting is notoriously difficult

→ ■ Well-informed guesswork, not mathematical precision!

# What Happened In Japan

(Unit: household)



Source: Ministry of Internal Affairs and Communications



## How The Forecast Is Created

- In order to avoid inconsistencies, we agreed to use IDATE data from its Panorama as the starting point for the forecast
- A forecast is created for each of 21 countries individually, and aggregated to create the overall forecast
- Forecasts are based on a set of “leading indicators” which affect likely market development

## Some Leading Indicators Are Common, Some Not

- **Most demand-side indicators are common to all countries, and drive our overall view**
- **Demand-side indicators are not generally at a point where telcos feel compelled to supply FTTH connections**
- **Most supply-side indicators are unique to each country, and drive the [big] differences between countries**
- **This makes it impossible to generalize about the prospects for “European” FTTH**

# Demand-Side Indicators

LEADING INDICATOR	DEVELOPMENTS OVER THE PAST 12 MONTHS	POTENTIAL DEVELOPMENTS OVER THE NEXT 12 MONTHS
Demand-Oriented Indicators		
<b>Marketing and take-up of third generation broadband services (at 20Mbit/s +)</b>	<b>Positive:</b> Average speed per household continues to rise rapidly, paving the way for FTTH. Speedtest showed average downstream speed at around 17Mbit/s, up around 25% on the year	<b>Neutral:</b> We expect the rise in average speed will continue in 2013, though there was some evidence to suggest that the speed of the rise has been slowing
<b>Consumer electronics—PCs, digital cameras, HDTV, etc</b>	<b>Neutral:</b> 2012 was a slow year for PCs and TVs, but this was offset by the tablet boom and by rapid growth in devices per home, as well as generally high growth in device ownership in some eastern countries	<b>Neutral:</b> number of devices per home will continue to multiply, but no great impact from 3DTV or other higher bandwidth devices is likely in the near term
<b>Services that drive higher-speed broadband</b>	<b>Neutral:</b> downstream services based on VDSL can support all current services, but the rise in uploading of photos, videos and Cloud services is driving a need for more symmetrical bandwidth	<b>Neutral:</b> although there is no killer app for FTTH in sight, the rise in upstream demand will likely continue.

# Supply-Side Indicators

Supply-Oriented Indicators		
<b>Stated attitudes and plans of incumbent telcos</b>	<b>Neutral:</b> Generally very slow in many large Western countries, but things are improving, with the Netherlands Spain, Portugal and Turkey leading a new incumbent charge,	<b>Neutral:</b> The picture will continue to be very mixed, with other incumbents gradually joining the FTTH move but some sticking with VDSL for now
<b>Competitive and entrepreneurial telco plans and their impact</b>	<b>Positive:</b> New entrants have had a big impact in Russia, Turkey, Bulgaria, Romania and many of the most dynamic markets, and growth in these countries will continue	<b>Positive:</b> we expect continuing good growth through the next few years in these countries
<b>Muni and utility plans and their impact</b>	<b>Positive:</b> municipal and utility deployment in Denmark, Netherlands (now KPN), Norway and Sweden all saw good growth in homes connected in 2012, and Germany also began to make some progress	<b>Neutral:</b> while there will continue to be growth in existing projects, we do not expect major new projects in other countries.
<b>Impact of cable MSOs</b>	<b>Neutral:</b> Cable MSOs had a big impact in 2011 and 2012 with 50-100Mbit/s + products; many incumbents have responded with VDSL, but it may push some to FTTH	<b>Neutral:</b> the VDSL build-out continue for now, but ultimately cable MSOs are likely to force many incumbents to build a true FTTH network
<b>Impact of mobile broadband</b>	<b>Neutral:</b> Some substitution of fixed broadband, and diversion of capital, but counterbalanced by need for fiber backhaul	<b>Neutral:</b> No major change in current situation is foreseen
<b>Green-field housing and construction</b>	<b>Negative:</b> House-building has been hit hard by the recession and remains far below its peak.	<b>Negative:</b> no sign house building will pick up enough in the near term to make any real difference for FTTH

# Other Indicators

Other Indicators		
<b>Impact of equipment cost and construction trends</b>	<b>Neutral:</b> Although cost of both construction and electronics continues to fall slowly, it is probably not enough to have a major impact	<b>Neutral:</b> Costs will continue to fall, but without having a major impact on network builder behavior
<b>Impact of copper-based DSL developments</b>	<b>Negative:</b> DSL vectoring, bonding and other developments are leading some operators to consider DSL anew and postpone FTTH	<b>Neutral:</b> Vectoring has still to deliver on its promise to make a real impact here
<b>Regulatory and political changes at European and national level</b>	<b>Negative:</b> Despite positive moves at both regional and national level, regulation has failed to have a continent-wide impact yet, and the €9bn CEF facility was cut to €1bn	<b>Positive:</b> the barriers that have held back many plans are steadily being removed
<b>Macro-economic environment</b>	<b>Neutral:</b> despite the poor outlook, operators in some badly affected territories like Portugal and Spain have continued to build	<b>Neutral:</b> on balance, 2013 seems likely to see a gradual improvement, but the situation is not yet clear
<b>FTTH development outside Europe and its political &amp; commercial impact</b>	<b>Neutral:</b> although some European countries are falling far behind other world regions, it has had only a muted effect on European politicians and the public to date	<b>Neutral:</b> little sign yet that this is about to really explode as a political issue

# Positive Leading Indicators In 2012/2013

- Massive drive to FTTB in Eastern Europe will continue, driven by competition, strong demand and low costs
- High penetration/conversion rate encouraging some to build out further
- Average broadband line speed continues to grow fast, priming the market for FTTH
- The case for FTTH is strengthening as costs continue to fall and as the evidence for lower opex and energy costs grows
- Devices per home increasing; user-generated video and photography helping to drive higher upload demand

# Secrets of Success: The Ten Percent Club

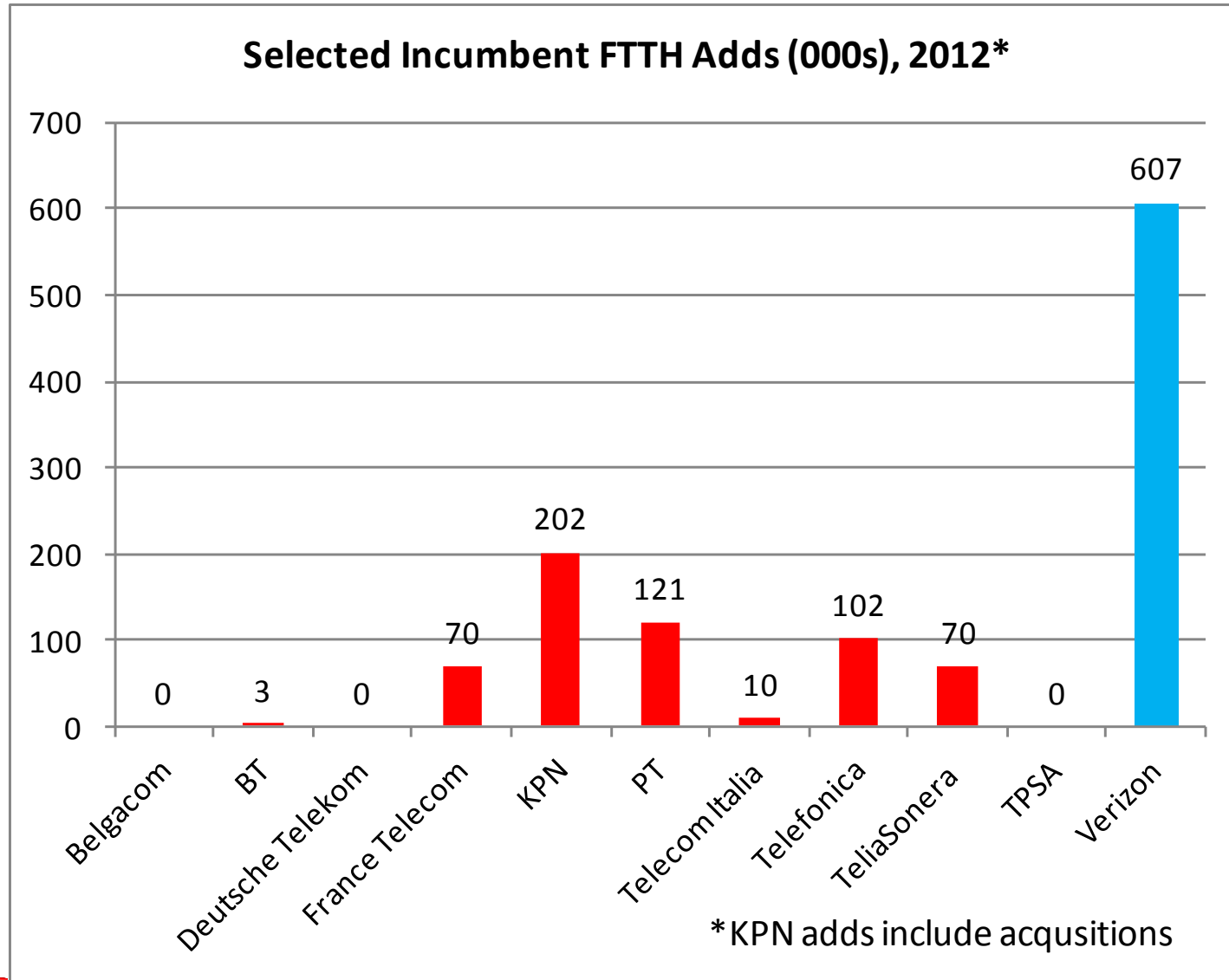
COUNTRY	H-HOLD FTTH PEN, END 2013 (EST)	FACTORS DRIVING SUCCESS
Bulgaria	20.2%	Strong entrepreneurial Ethernet LAN sector; little DSL; low deployment costs; private sector investment
Denmark	14.2%	Strategic decision by regional electricity utilities to invest in FTTH
Estonia	13.2%	Incumbent (owned by TeliaSonera) took strategic decision to shift to FTTH
Latvia	18.6%	Incumbent took strategic decision to shift to FTTH
Lithuania	33.2%	Incumbent took strategic decision to shift to FTTH; multiple other players also building rival fiber networks
Norway	21.6%	Alternative utility-owned telco created highly successful high ARPU triple-play model
Portugal	13.4%	Early entry by two CLECs impelled major shift to FTTH by incumbent; successful build model based on low deployment costs
Russia	16.8%	Very low cost build model based on FTTB and cheap Ethernet switches; little DSL; multiple well-funded entrepreneurial builders
Slovakia	15.1%	Strong competition between incumbent and a well-funded rival
Slovenia	14.8%	Strong competition between incumbent and rival
Sweden	27.5%	Led by municipalities and housing associations, as well as some early entrepreneurial builds; incumbent also now involved

# Negative Leading Indicators In 2012/2013

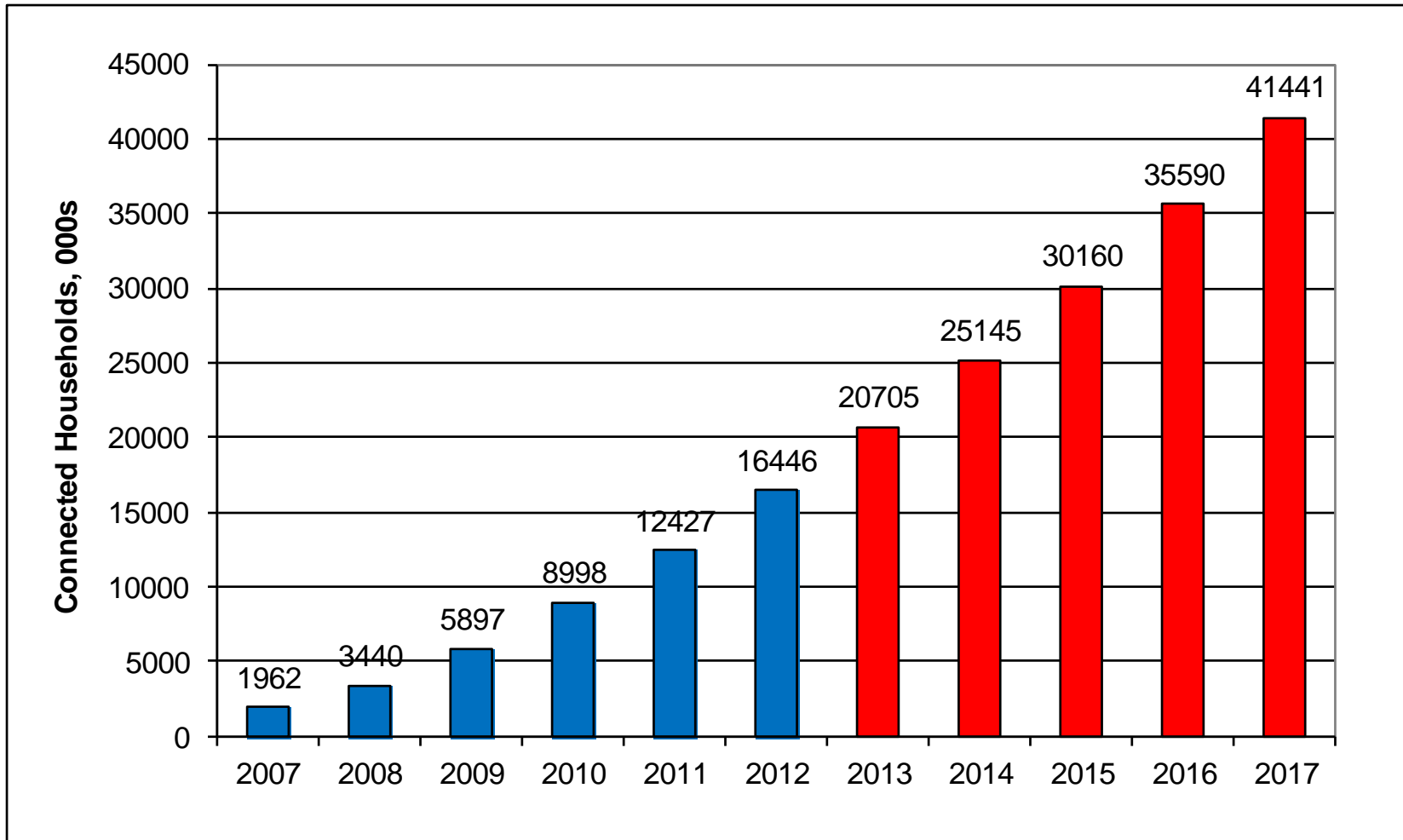
- No really compelling application yet that requires a fiber connection; poor year for new PC and TV sales
- Many Western European incumbents are still sceptical about business case for FTTH, and technologies like VDSL vectoring are leading to further postponements
- Poor conversion rate in others such as France
- Muni movement making slow progress in some countries, especially Germany
- EU severely cut CEF, which might have helped kick-start broadband in some territories



# The Incumbent FTTH Gap

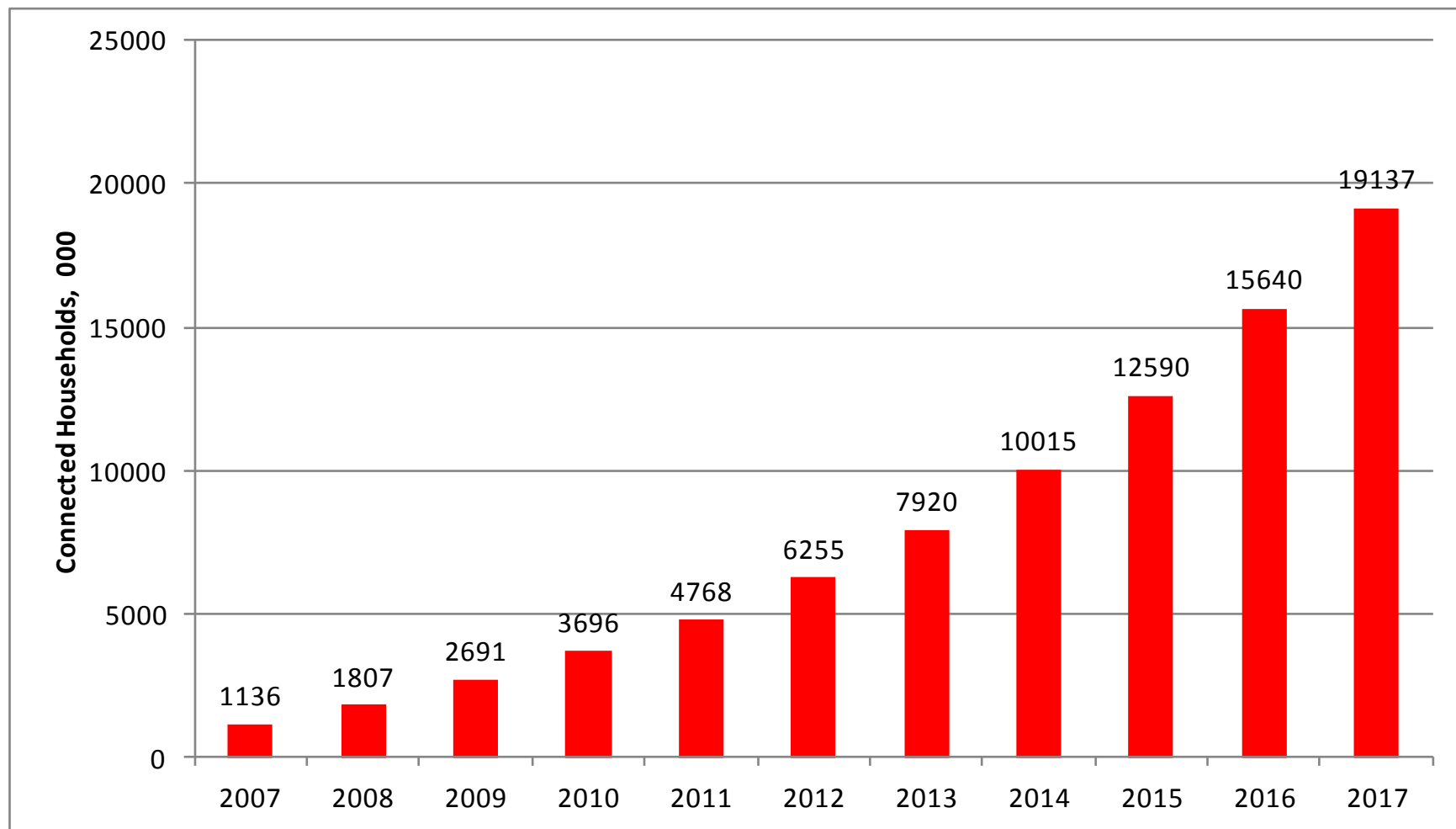


# European Region FTTH Forecast

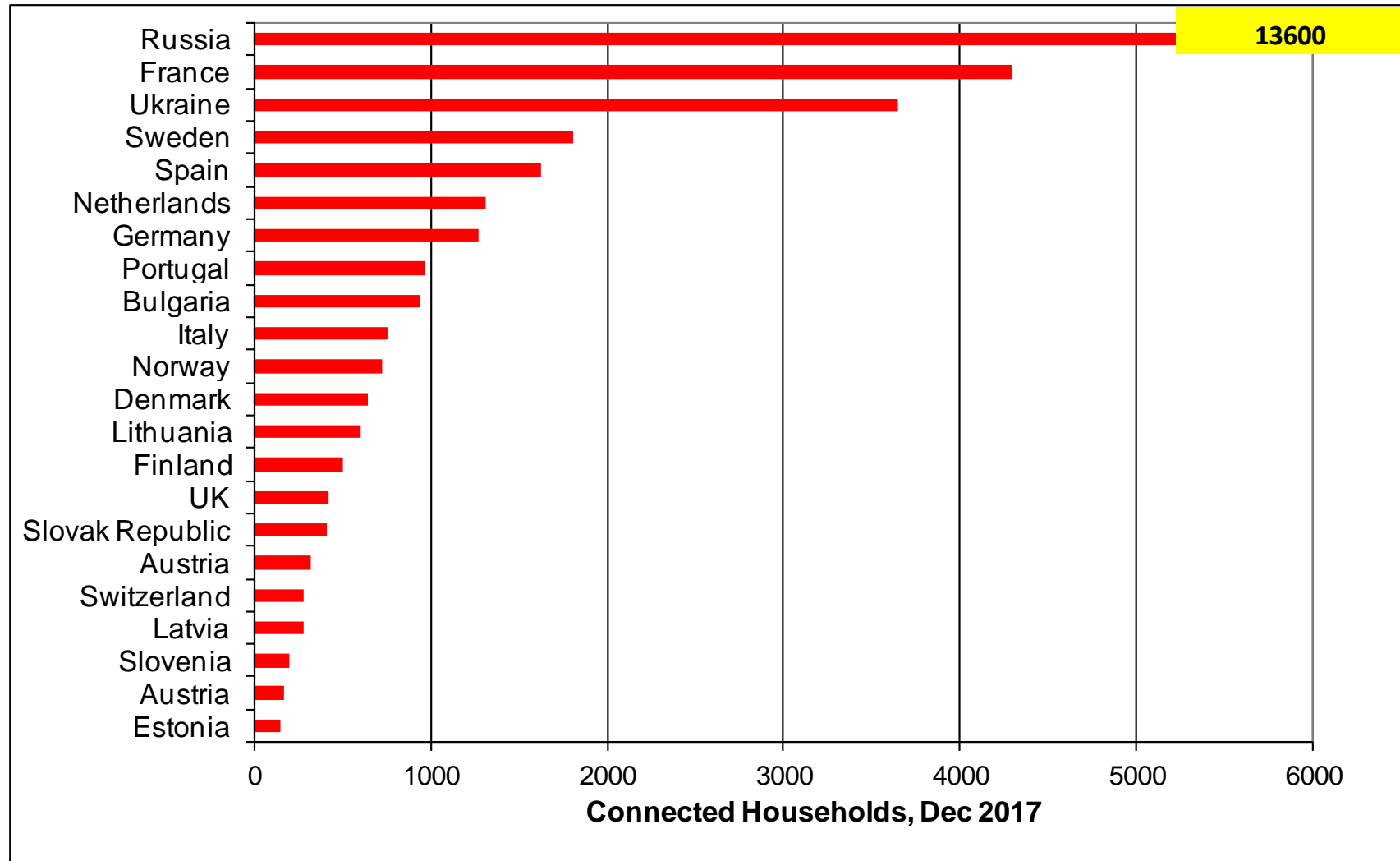


**Note: Households connected directly to fiber and apartment connected via basement fiber termination (FTTB)**

# EU-only Forecast

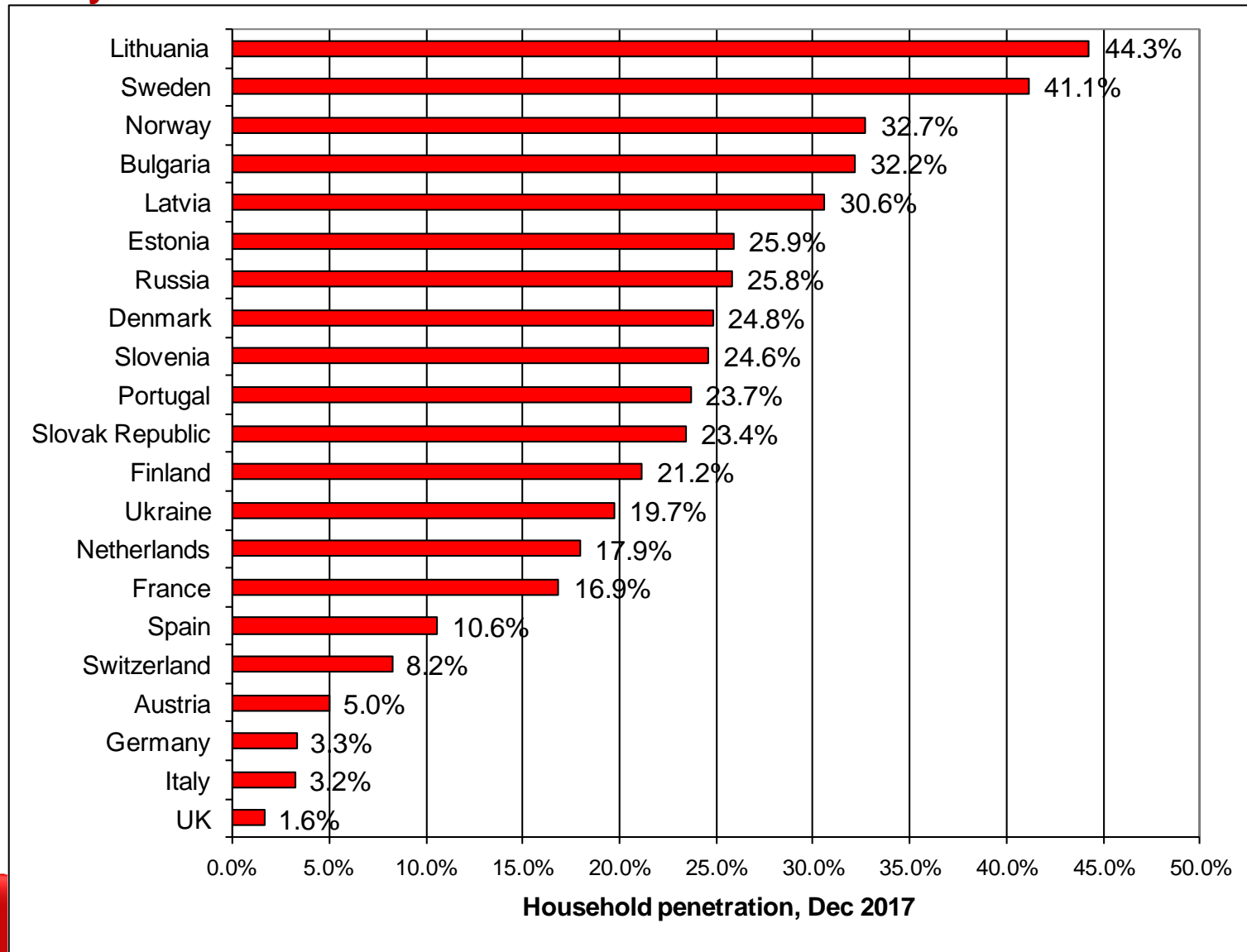


# Top FTTH Countries In 2017\*, By Number Of Connected Households



**\*Among the 21 countries  
analyzed in detail**

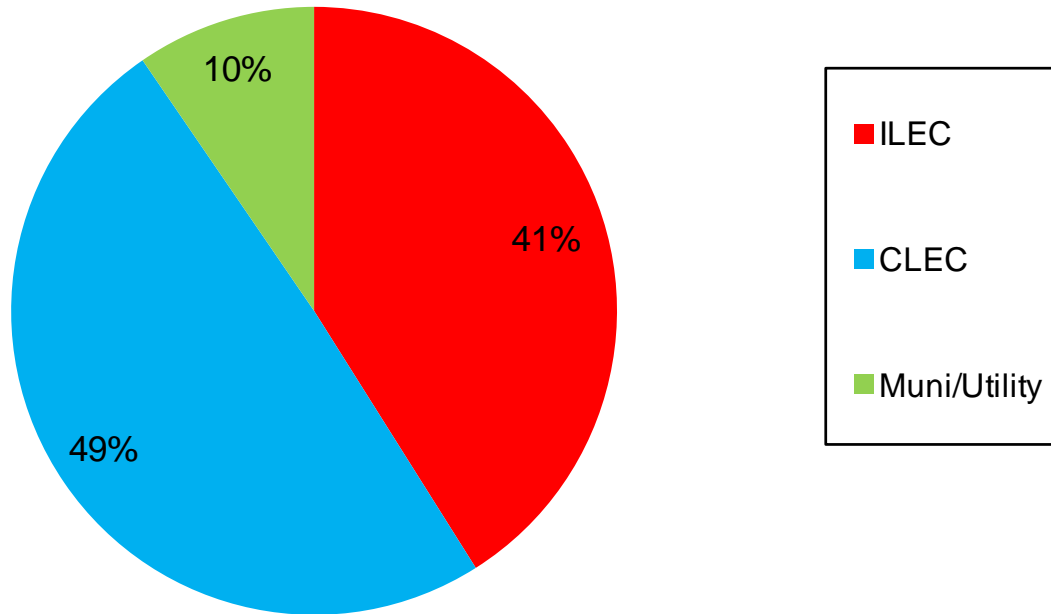
# Top FTTH Countries In Europe, 2017\*, By Household Penetration



# Main Factors Contributing To Differences Between Countries

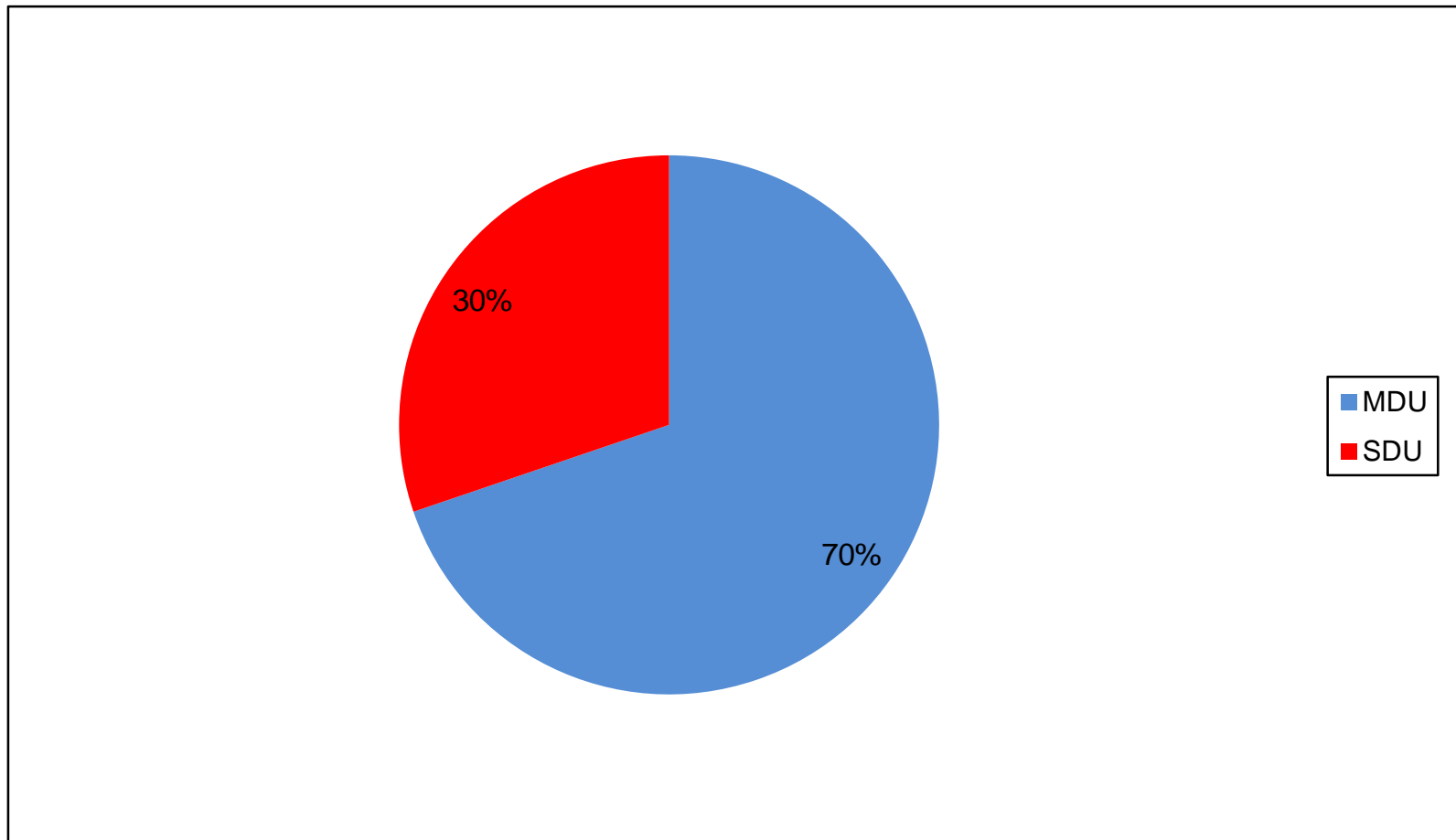
- *In approximate order of importance:*
- Actual achievements to date
- Attitudes and plans of the major potential builders
- Impact and effectiveness of regulation and government policy
- Competition and its impact
- Density of housing, proportion of MDUs and amount of green-field construction
- Local appetite for high-bandwidth services
- Local construction cost issues, especially availability of ducts and local civil construction factors

# FTTH Connections In Europe, 2017, By Type Of Builder



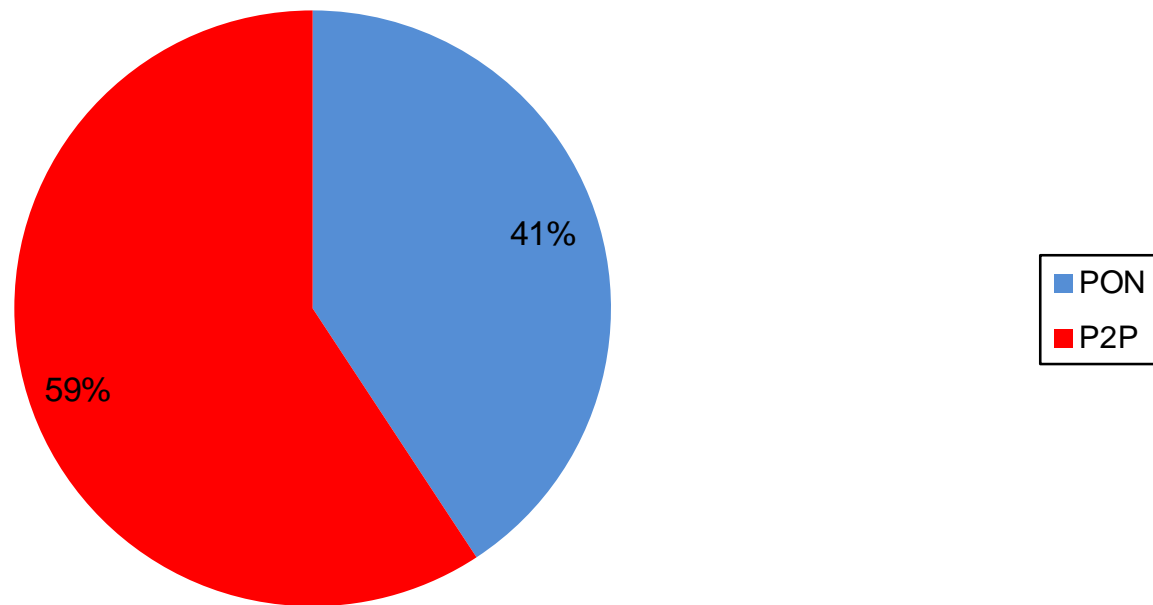
Note: ILEC = former incumbent monopoly telco (PTT). CLEC = competitive or alternative telco or broadband provider. Muni/Utility = network built by municipal local authority or by a power utility

# FTTH Connections in Europe, 2017, By Type of Dwelling





# FTTH Connections in Europe, 2017, By Type of Technology



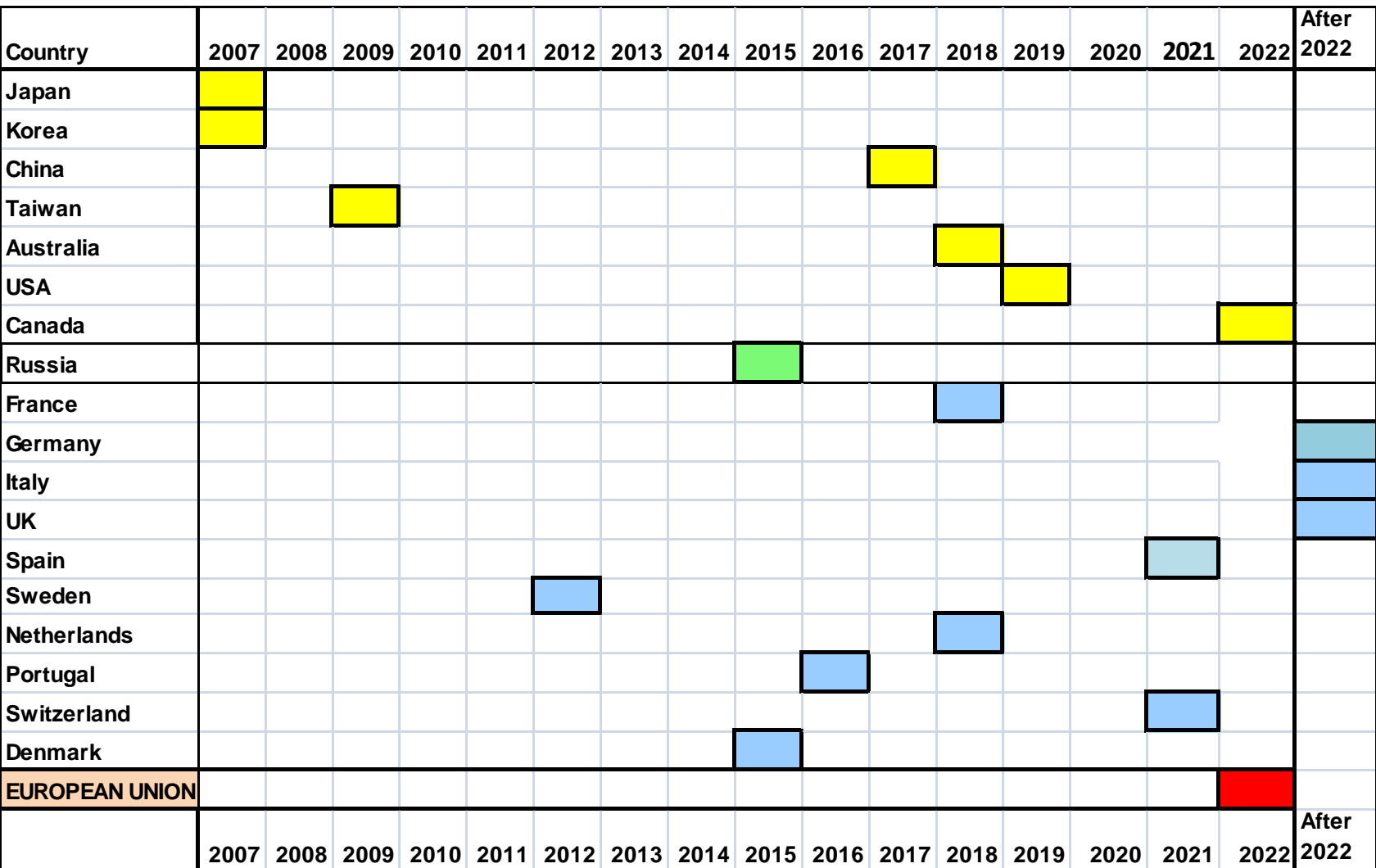
# Changes in Country Forecast This Year

- **The most important change this year is that forecasts were substantially increased in several countries. Specifically, we substantially increased the forecasts for Bulgaria, Finland, Russia Sweden and Ukraine, in all cases because of new information about existing builds and plans.**
- **At the same time, we substantially lowered the forecast for Austria and Germany, largely because of very slow progress with existing builds and lack of commitment on the part of the incumbent.**
- **The forecast was also more modestly lowered for Italy, Norway, Switzerland and the UK.**
- **The forecast largely stayed the same for Denmark, Estonia, France, Latvia, Lithuania, The Netherlands, Portugal, Slovenia and Spain.**

# Other Countries

- The other 17 countries were not analyzed in as much detail, so the forecasts are more rudimentary
  - Forecasts in these cases is based on IDATE information, extrapolation from other countries, and limited research on current plans
  - These countries accounted for about 12% of FTTH connections at the end of 2010, so they do not materially affect the aggregate forecast for the whole region
- Andorra
  - Armenia
  - Belarus
  - Belgium
  - Croatia
  - Cyprus
  - Czech Republic
  - Greece
  - Hungary
  - Iceland
  - Ireland
  - Israel
  - Luxembourg
  - Kazakhstan
  - Macedonia
  - Malta
  - Moldova
  - Montenegro
  - Romania
  - Serbia
  - Turkey

# The Race To FTTH Maturity



**Note:** chart shows the year in which each territory is expected **on current trends and plans** to achieve “FTTH maturity”, defined here as 20% household penetration of FTTH or FTTB

# Summary

- Almost 41.5m households are expected to be connected to FTTH or FTTB at the end of 2017 in the countries covered by this forecast— this is about 13.3% of all homes in the region
- In the EU only, the total is forecast to be just over 19m, or 9.7% of all homes
- 12 of the 21 nations individually analyzed should achieve “fiber maturity” (20% penetration) by 2017— Lithuania, Sweden, Norway, Bulgaria, Latvia, Estonia, Russia, Denmark, Slovenia, Portugal, Slovak Republic and Finland
- Our forecast projects that 5 of the 21 nations will still be under 10% penetration at the end of 2016—UK, Italy, Germany, Switzerland, and Austria
- Though the case for FTTH and actual deployment both improved markedly in 2012, the gap between different countries in Europe, and between EU and non-EU area, is still widening

# Invitation: Upcoming Webinar

- **The Role of FTTH in the Mobile Backhaul**  
6 June 2013 11-12 CEST  
Presenter: Roland Montagne

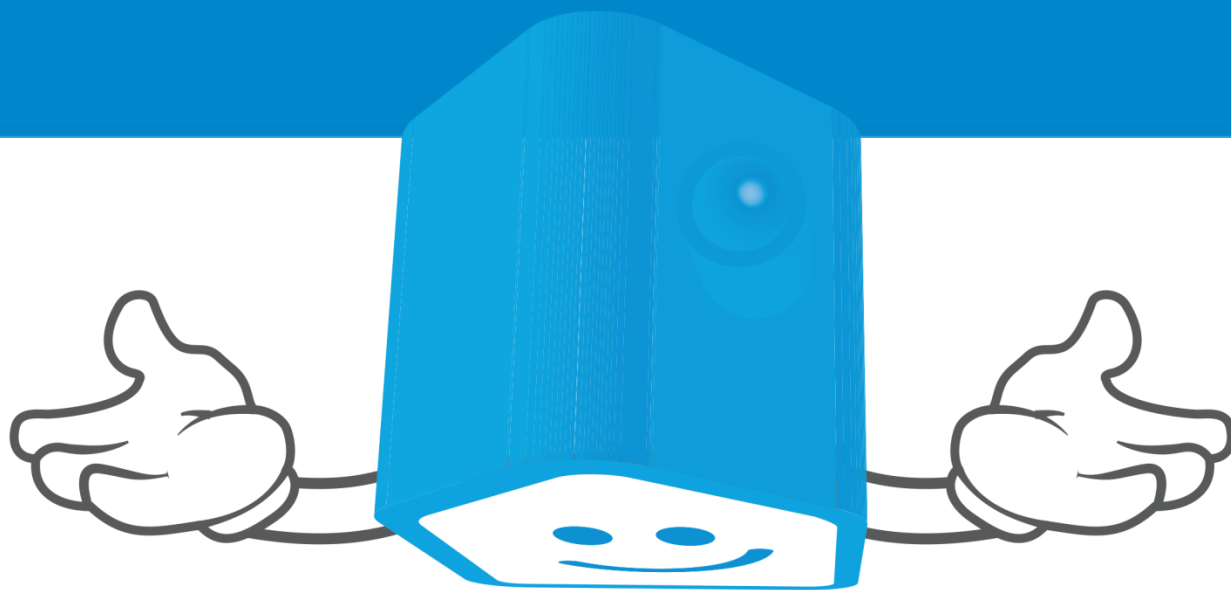


# FTTH Conference 2014

## Join us Next Year in Stockholm!

### 18-20 February 2014





[www.ftthcouncil.eu](http://www.ftthcouncil.eu)

