

European FTTH Forecast, 2008-2013

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Introduction

- Forecast created for the FTTH Council Europe
- Based on individual analysis of 20 countries, and brief reviews of a further 20 countries
- Wider forecast than hitherto, including Russia and Turkey, among others
- Significant downgrade in forecast compared to last year
 - Slow start by incumbent telcos
 - Lack of regulatory clarity, and regulatory hold-ups
 - Credit crunch and difficult investment climate
- Difficult market to forecast
 - In most countries, activity has barely begun
 - Big and persistent differences from one country to another
 - Some major influences on level of activity are subject to hard-to-predict changes

Positive Leading Indicators In 2008

- Buoyant consumer electronics market (TVs, PCs, games machines, cameras...) driving demand for applications and bandwidth
- Strong trend to higher-speed non-fiber products—priming the market for a move to fiber
- Strong CLEC activity in eastern Europe
- Continuing steady fall in cost of equipment and construction
- Positive regulatory developments in the second half of the year
- BUT...
- Many of those indicators could now be turning negative

Negative Leading Indicators In 2008

- Slow (and slower than expected) roll-out by incumbent telcos
- Slowdown in the housing market affecting green-field development
- Few significant new projects announced
- Economic downturn affecting ability to finance capital intensive projects

Countries Included In This Forecast

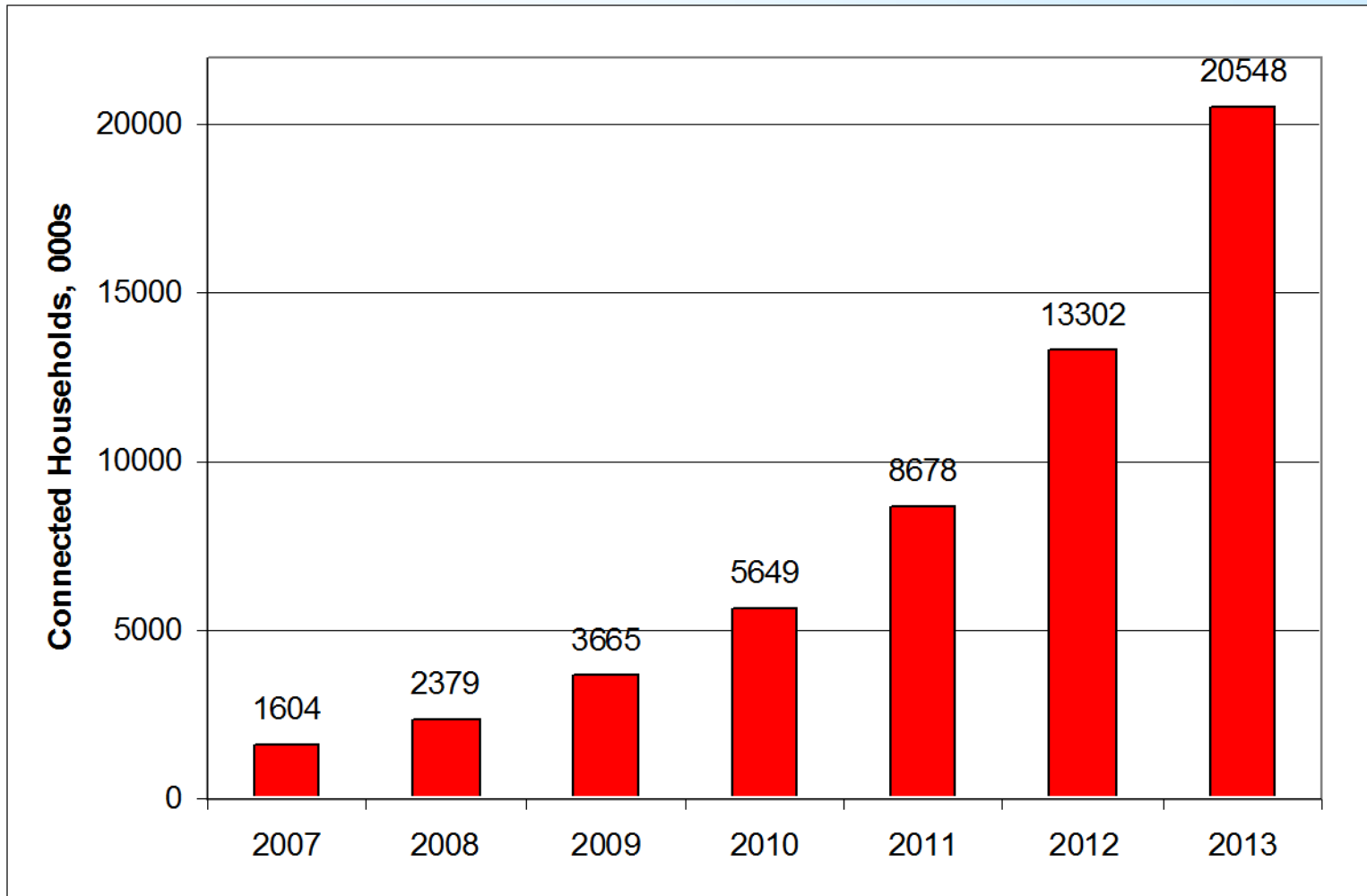
Individual Forecasts Created

Austria
Bulgaria
Czech Republic
Denmark
France
Germany
Ireland
Italy
Netherlands
Norway
Poland
Portugal
Russia
Slovenia
Spain
Sweden
Switzerland
Turkey
UK
Ukraine

Included in Aggregate Forecast

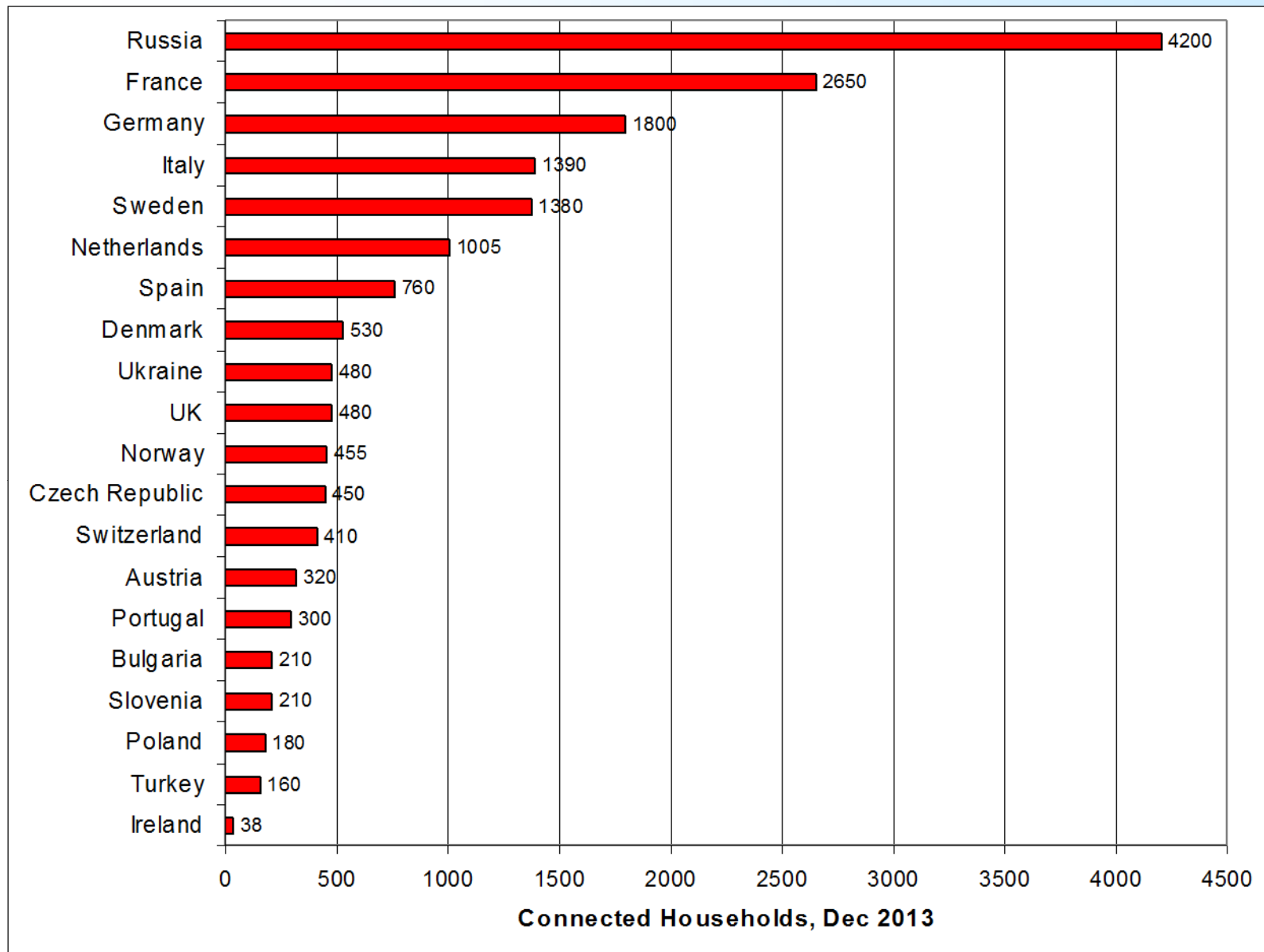
Albania
Andorra
Belarus
Belgium
Bosnia & Herzegovina
Croatia
Cyprus
Estonia
Finland
Greece
Hungary
Iceland
Latvia
Lithuania
Luxembourg
Macedonia
Malta
Moldova
Montenegro
Romania
Serbia
Slovak Republic

European FTTH Forecast

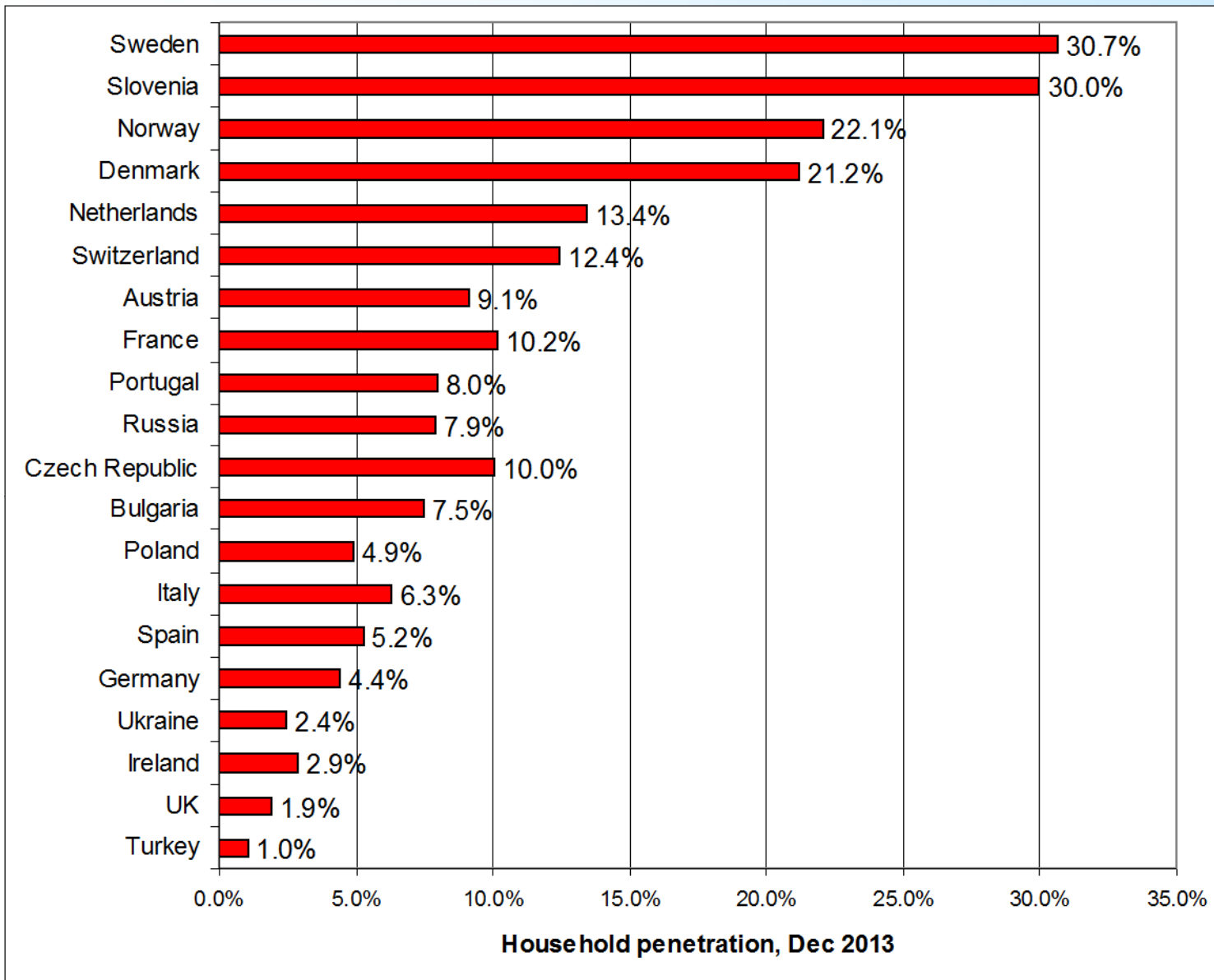


Note: Households connected directly to fiber and apartment connected via basement fiber termination (FTTB)

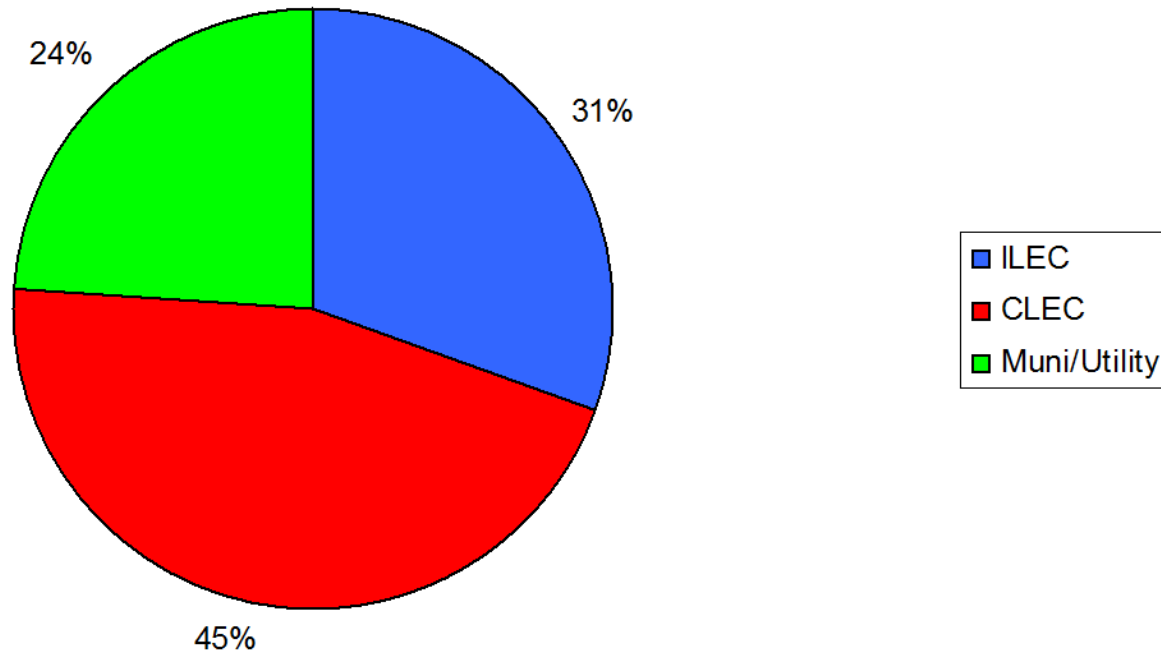
Top 10 FTTH Countries In EU, 2013, By Number Of Connected Households



Top 10 FTTH Countries In EU, 2013, By Household Penetration



FTTH Connections In EU, 2013, 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

Summary

- There will be 20.5m FTTH households at the end of 2013, with Russia and France leading the way, and Sweden and Slovenia leading on household penetration
- FTTH slowed down in Europe in 2008, but despite the credit crunch we expect compound annual growth rate will top 50% between 2008 and 2013
- Key leading indicators for FTTH deployment have turned negative, leading us to moderate our forecast from last year, with many countries more than a year behind the original schedule
- The US is now about four years ahead of Europe on average in FTTH maturity; Japan is about 8-10 years ahead
- Strong European demand for bandwidth to support key devices and applications remain strong drivers for FTTH
- Level of economic development is not the main factor for high FTTH penetration: there is plenty of activity in eastern territories with lower GDP
- Household penetration will top 30% by 2013 in advanced European nations, but remain below 5% in several important countries
- No one type of operator will dominate: unlike in other global regions, the incumbent national telco will not be the dominant provider in many European countries