The Future
is Fibre

By Sara Waddington, Managing Editor, SCTE

We report from February's FTTH Conference 2018 in Valencia, Spain, where the SCTE sent two lucky bursary winners.

Under the High Patronage of His Majesty the King Felipe VI, this year's FTTH Conference 2018 welcomed thousands of visitors. It featured an extraordinary programme dedicated to the hottest topics and trends relating to fibre connectivity and digital innovation, including CTO and Investor panels.

The event, which took place from **13-15 February 2018** in Valencia, Spain, was opened by H.E. Alvaro Nadal Belda, Spain's Minister of Energy, Tourism and the Digital Agenda, who underlined the importance of a strong political vision to unlock the necessary investment in future-proof digital infrastructure and make the digital revolution possible. Ronan Kelly, President of the FTTH Council Europe, also took the floor to deliver an opening speech, highlighting the Council's ambitious mission and vision for the future.

The Plenary Session of the FTTH Conference 2018 featured an impressive list of speakers and contributors. The Global CTIO of Telefónica, Enrique Blanco, gave a keynote speech sharing his vision on leveraging fibre industrialisation to promote digital innovation. He then joined the Keynote Session of the conference, which featured a high-level discussion on the 'Recipes for a Fibre-Rich Diet' with the CTIO of Orange Spain (Mónica Sala), Vodafone Spain's CTO Ismail Asenjo and Fernando Molina, CTO of MÁSMÓVIL.

The SCTE exhibited at the event as a media partner and sent two lucky bursary winners to FTTH Conference 2018. In this article, they also give their impressions of the event.

Awards and studies

On **14 February 2018**, the FTTH Council Europe announced that Open Fiber had received this year's FTTH Council Europe Operator Award, while Matthew Hare, CEO of Gigaclear, received the Individual Award, for their outstanding contributions to the acceleration of FTTH in Europe.

The 'Women in Fibre' Cocktail, sponsored by Facebook, was another hallmark moment on the second day. The FTTH Conference's popular Fibration Night was a Spanish fiesta with jazz vibes, live Paella cooking, Spanish wines and a magic surprise…

SCTE Bursary WINNER

Colin Pooley
Principal Engineer – Next Generation Connected Premise, Access Network Engineering, Technology & Innovation, Liberty Global

Within Liberty Global, I am part of the Next Generation Connected Premise Team responsible primarily for the development and improvement of products, practices, tooling and equipment for the connection from the Access Network all the way to the Customer Premise Equipment and beyond, to where the product truly meets the customer through in-home connectivity.

Let's start with a big thank you to the SCTE for awarding me with one of the two bursaries to the FTTH Conference 2018. For an MSO, the FTTH conference is now as important as ANGA COM and hopefully a greater number of bursaries can be supported for future conferences to give more people exposure to the experience and benefits of seeing the leading edge of what's new in the industry. Thanks also to Liberty Global for acknowledging the importance of this and supporting attendance at these events.

From the conference, it's clear that FTTx has reached a tipping point. Once the territory of a few, mostly Telco operators with a GPON focus, fibre has finally and fully landed in the MSO space with RFoG and GEPON and with smaller local/regional deployments. Much of this movement has been supported by taking working with fibre from the domain of the experienced splice engineer towards the plug and play. Of course, network deployment splicing is still an essential skill but, within the customer connection, the trend is towards patching with splicing as an exception. Hey, at some point the customer needs to make a fibre connection to a fibre to the outlet installation - let's hope it's clean.

The difference for me from previous FTTH conferences was one of viewpoint. Previously, we (as in LG) were in a learning stage, taking our first steps from being wholly coax-focused for the last mile to taking fibre right to the customer's front door and being ready to get to the CPE. Now, we are learning to live with the deployments we have done so far and learning from them to make improvements. Let's call it FTTH 2.0.

Let me explain.......it's one thing to build a network with lots of lovely microducts and blown fibre, with blowable connectors etc., but what happens when something gets damaged or doesn't work. There are the same in-life influences on a FTTH network as on an open duct network but try putting a duct rod down a 4mm ID microduct to find a blockage. If I give you 24 x identical microducts in a narrow excavation (oh, it's cold, wet and dark by the way), can you tell me which one has a fibre in it, and then which is the one you are looking for? Getting it wrong can be costly and almost certainly customer-affecting.

So, I went armed to this year's conference with experience of the challenges of not only making a FTTH network but also the challenges of operating it after the trench lines have all faded and parking disputes have been settled. I had plenty of conversations with suppliers and other network operators on the subject of "living with"… The other hot topic within LG for FTTH is taking fibre to MDUs and I think I lost count of the number of different ways you can design a housing for fibre management, splicing, splitters and a patching panel.....Let's just say that, before the dawn of the 3D printer, there would have been a lot fewer things to be able to actually touch and discuss.

In summary, a very worthwhile conference and I would recommend it to anyone (at whatever stage they are at), if they are thinking about a fibre network deployment or want to know more about FTTH and share their experience with others. I eagerly wait to see what's new and what's hot at the 2019 FTTH Conference.

Above: Ronan Kelly, President of the FTTH Council Europe

The Socio-Economic Impact of FTTH was a new study released at the FTTH Conference 2018 by the FTTH Council.

Carried out by WIK on the socio-economic benefits of fibre, it explores the fact that fibre-based connectivity is transforming and enhancing the way we live, do business and interact. The objective was to identify more precisely the impact of fibre from the perspective of the end-users, based on actual consumer experience.

The study analyses the socio-economic benefits of FTTH in two countries, Sweden and The Netherlands. It uses case-studies and a representative survey of 1,018 Swedish consumers.

Responses to the survey lead to the conclusion that, for the majority of FTTH users, fibre is about higher speed and better value for money. 87% of FTTH subscribers mention high bandwidth as the primary reason for purchasing a FTTH connection. 62% are satisfied with the higher range of services

they get with FTTH. 51% are of the view that fibre provides better value for money.

"The degree of satisfaction of FTTH end-users is substantially higher than recorded for any other Internet access technology in Sweden. It reached 83%. It is also worth noting that 94% of non-FTTH users would consider subscribing to FTTH if it was made available in their area," said the report. The study also looked at the impact of fibre on the economy and society.

"Given that Scandinavian and Baltic countries are leading the way on FTTH/B penetration, it was particularly interesting to study the perspective of end-users in Sweden. The migration process (from another technology to FTTH) started in Sweden in 2007 and is already quite advanced, and the shares of subscriptions that rely on other technologies such as DSL and cable have decreased over the same period. This transition

> ## For the majority of FTTH users, fibre is about higher speed and better value for money.

provided a large quantity of data to analyse and the opinion of the end-users and their degree of satisfaction were therefore crucial in understanding what triggers end-users to choose fibre and how they use fibre connectivity," explained Ronan Kelly, President of the FTTH Council Europe.

20% growth in fibre subscribers

The latest figures of the FTTH Market Panorama, prepared by IDATE for the FTTH Council Europe, were also released at the event. The number of fibre to the home (FTTH) and fibre to the building (FTTB) subscribers in Europe increased by 20.4% since September 2016 with more than 51.6 million FTTH/B subscribers in September 2017 for EU391. The take-up rate also soared to 34.8% for EU39 from 29.9% in the previous year.

The significant increase in new subscribers from September 2016 to September 2017 was in Russia, which added

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SCTE Bursary WINNER

Sean Pillans
Senior Engineer – Access Power & Infrastructure, Access Network Engineering, Technology & Innovation, Liberty Global

I'd like to begin by thanking the SCTE for awarding me with a bursary to attend the FTTH Conference 2018 in Valencia. I'd also like to thank Liberty Global in supporting our Engineering Team and individuals with such events. Both enable great collaboration and learning within our industry.

Within Liberty Global, I am part of the Access Power and Infrastructure Team responsible for the development of enclosures, fibre cables and connectivity to support network growth. Much of my work relates to 'Fibre to the Cabinet' or 'Fibre to the Home' network scenarios. I support a key objective within Liberty Global to deploy access networks throughout Europe more efficiently by reducing build time and cost, as well as improving network reliability and performance.

Over the past few years, I've been responsible for developing, testing and supporting the use of blown fibre cable, resulting in a set of agreed planning and installation practices and standards. More recently, I have played a

key role in the design and development of Passive Optical Networks and Pre-Connected Fibre (Customer) Drop Cables solutions.

The FTTH Conference provides a resourceful mix of training, lectures and exhibitors all under one roof, allowing me to share ideas and opinions with others and learn from leading industry experts. This year there was a real buzz - FTTH deployments throughout Europe are continuing to grow and fibre deployment options and solutions are adapting and developing accordingly. If you're new to the industry or have never been to an FTTH conference, I'd say that it is now an essential part of the industry calendar.

Once again, thank you SCTE for allowing me the opportunity to meet with LG colleagues, suppliers, industry experts and other operators to seek out ideas and solutions relating to Fibre and FTTH. I'm really excited about the future of fibre in our industry and I am keen to see what the future holds. I can't wait for the next FTTH Conference in 2019 in Amsterdam!

General ranking: FTTH/B Homes Passed

> **> 18 countries with 2 M HP or more in EU39 (12 countries in EU28, in blue on the map)**

> **> Most significant growth rates do not necessarily concern the largest market but this confirms that, even in countries where FTTH/B is not the leading NGA solution, the interest is growing (e.g. Poland: +46% and UK: +31%)**

Countries with 2 M HP or more at Sept 2017 [Top 5 Growth annual rates] (million)

> 2 M HP

■ Dec 2014 ■ Sept 2015 ■ Sept 2016 ■ Sept 2017
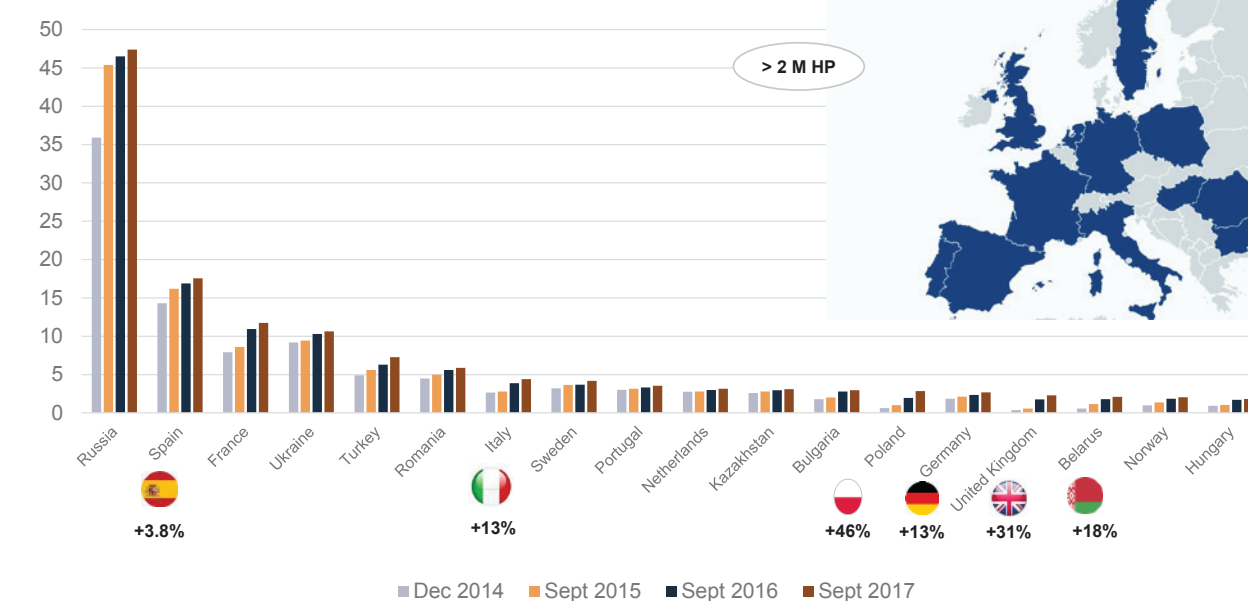
Source: IDATE for FTTH Council Europe

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IDATE DIGIWORLD

The modern show grounds at Valencia for the FTTH Conference 2018

1,826,000 new FTTH/B subscribers. Spain also experienced considerable growth with 1,612,371 new FTTH/B subscribers, along with France which added 1,067,780 new subscribers.

The number of homes passed (homes connected with FTTH/B) in EU39 increased dramatically to reach more than 148 million, representing a growth of 16% compared to September 2016. That take-up in the EU282 reached 32.4%. The new market panorama shows that in the European region, private players (former incumbents and alternative operators) are deploying more FTTx networks (56% of total players) in comparison to other players, such as public operators and power utilities. Another notable trend is the evolution of fibre technologies over the last year, which revealed a predominance of FTTH architecture over FTTB (55% vs 45% by September 2017). Also of interest is that more alternative operators are deploying FTTH/B, with a contribution of about 54% of the total FTTH/B players.

Finally, a differentiation appears between the "total of homes passed" which are counted once (independently from the number of operators which cover them) and the "total of

sockets deployed", reflecting the total effort made by players to deploy their own fibre networks. The Market Panorama indicates that, with more numerous players investing in their own infrastructure in recent years, it is becoming more common for two or more players to reach the same specific household. France and Spain are leaders in this field.

FTTH ranking

Latvia is still leading the race for European FTTH penetration, said the report. It is a confirmed leader in FTTH/B, championing the ranking for another year at 50.6% household penetration. Both Sweden (43.4%) and Lithuania (42.6%) remain on the podium, confirming growth from previous years.

This year, Ireland makes its entry to the Global ranking, reaching a penetration rate of 1.7% and a take-up rate of 9.6%. By September 2017 and in comparison to September 2016, Ireland has increased its FTTH/B subscriber base by 73% (29,446 subscribers) and its FTTH/B Homes Passed presence in total Irish homes by 254% (306,285 homes passed).

> " **The number of fibre to the home (FTTH) and fibre to the building (FTTB) subscribers in Europe increased by 20.4% since September 2016.** "

> " **It is becoming more common for two or more players to reach the same specific household.** "

"The Irish government has played a tremendous role in expanding super-fast broadband networks across all areas of Ireland, although in recent times the need for adjustment of the tools being used to promote deployment have emerged. Ireland launched a National Broadband Plan in 2012 with a view to increasing connectivity in rural areas, providing high-speed Internet services to at least 30% of premises and offering a universal broadband speed of 30Mbps by the end of 2022. During 2017 two of the major bidders, citing challenges with the economics of the plan, withdrew from the process," said the report.

"Despite this, Eir, the former incumbent operator and SIRO, the joint venture between Vodafone and the power utility ESB, are continuing their deployments of fibre access networks across the country and remain the most active investors in FTTH/B in Ireland, followed by Magnet Networks, Digiweb and Enet."

Players in France deployed 6,739,320 new fibre sockets between 2016 and 2017 (+31%) and Spain deployed 6,590,282 new FTTH/B sockets (+24%). With around 17.5 million homes passed by FTTH/B and 6 million subscribers by September 2017, Spain scores high on the Global ranking with a penetration rate of 33.9%.

The FTTH 2019 Conference will take place at the RAI centre in Amsterdam from **12 - 14 March 2019**.

A panel session at FTTH Conference 2018

EDITOR'S NOTE

The FTTH Council Europe is an industry organisation with a mission to accelerate ubiquitous fibre-based connectivity empowering a leading Digital Society throughout Europe. The FTTH Council Europe consists of more than 150 member companies. See **www.ftthcouncil.eu**