



THE LIGHT AGE

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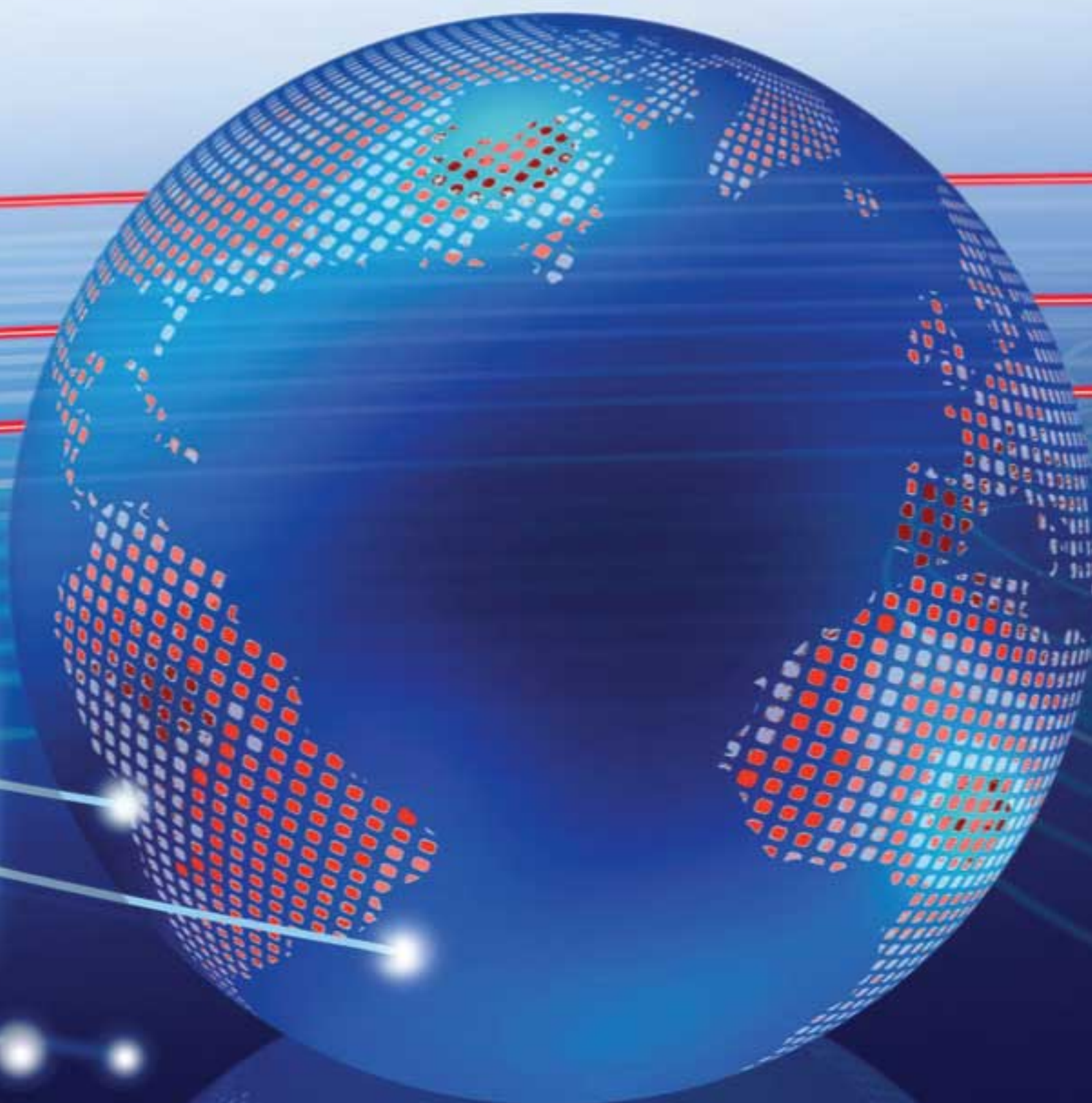
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Over the last two years the MENA and Africa regions have witnessed a rapid expansion of FTTH deployment in some of its countries. The UAE, for instance, has surpassed other countries, not just in the region but around the world, as having the most FTTH homes passed, while countries like Jordan, Qatar and Saudi Arabia are showing fast growth as well.

This has given rise to real optimism about the future of the FTTH in MENA and Africa. However, there are challenges. Like many other regions, accelerating FTTH rollout in some countries is hindered by the need for investment, as well as business model pressures and regulatory uncertainty.

Investment is a definitive requirement as it helps translate government imperatives and national ICT visions and goals into a reality. At the same time, there is also the need to have a more comprehensive regulatory framework to help ease the concerns of investors and expedite their decision to make investments into this technology.

That is why the FTTH Council Africa has set up its own Code of Conduct to raise confidence in the standards of FTTH service providers and speed up the deployment of fibre in the region. The Code of Conduct establishes an ethical and governance framework for fibre

optics industry players in Africa. The intention is not to supplant any national regulatory measures but to demonstrate to the public sector the good faith of the industry in creating stability in what is currently in Africa a new and uncertain environment.

“The FTTH Council Africa’s Code of Conduct establishes an ethical and governance framework for fibre optics industry players in Africa.”

Juanita Clark

Also of importance are incentives from governments in the form of public-private partnerships which are needed for ubiquitous national broadband deployment. These should be based on the best strategies for internet penetration and accessibility according to national levels.

Modern and new technologies continue to attract significant government investment. Currently, the key driver for FTTH/B deployment in these two regions is investment in massive new housing programmes. The potential for FTTH/B is huge in both MENA and Africa. However, several players and governments still have to define their strategy for large scale deployment.

Right: The founding members of the FTTH Council; Global Alliance (FCGA). From left to right: Ishibashi Yoshihiro (FTTH Council Asia-Pacific), Johan Kleynhans (FTTH Council Africa), Carlos Barroqueira (FTTH Council Europe), Frank Jaffer (FTTH Council Asia-Pacific), H. Munasir Choudhury (FTTH Council Asia-Pacific), Juanita Clark (FTTH Council Africa), Edgar Aker (FTTH Council Europe), Gilbero Guitarte (FTTH Council Americas LATAM Chapter), Hartwig Tauber (FTTH Council Europe), Heather B. Gold (FTTH Council Americas), Storaasli Olaf (FTTH Council Europe), Nadia Genis (FTTH Council Africa), and Christine Beylouni (FTTH Council MENA).



The FTTH Council MENA and the FTTH Council Africa are committed to play its part in stepping up fibre deployment in its respective regions. With this in mind, the FTTH Council MENA utilises its Regulatory and Policy committee to strengthen cooperation with regulators as well as work with governments to promote the national rollout of FTTH.

In Africa, creating awareness among members on the importance of delivering sustainable, high-quality fibre projects which will benefit the present and future generations has been a key focus for 2013, while end-user awareness will drive the mission for 2014.

The big effort applied by both councils can only have a positive-influence on the relevant policy and regulatory developments in the MENA and Africa regions and boost broadband deployment in general and FTTH rollout in particular.

Christine Beylouni

Director General, FTTH Council MENA

Juanita Clark

Chief Executive Officer, FTTH Council Africa

“The UAE has surpassed other countries around the world, as having the most FTTH homes passed, while countries like Jordan, Qatar and Saudi Arabia are showing fast growth as well.”

Christine Beylouni





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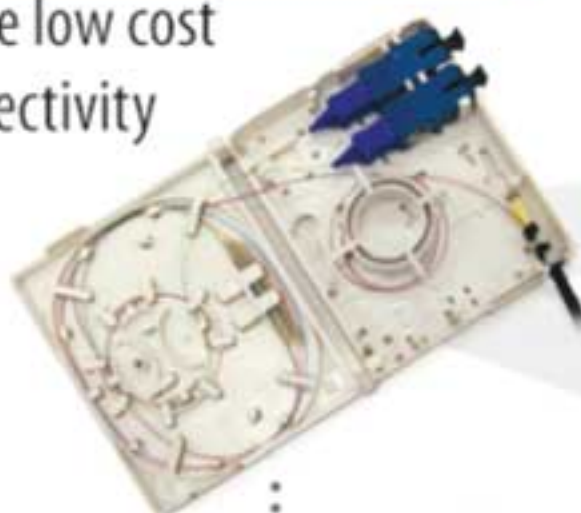
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Connecting Morocco

Scheduled to be held from the 27th to the 28th of November, the 5th edition of the FTTH Council MENA Conference themed *FTTH, The New Era in Digital Transformation*, will be held in Marrakech, Morocco under the patronage of Morocco's Ministry of Industry, Trade and New Technologies and supported by ANRT (National Telecommunications Regulatory Agency).

In September, Mr Abdelkader Amara – Morocco's then Minister of Industry, Trade and New Technologies – spoke on the progress of ICT and fibre optics in his nation to **The Light Age**.



“For many years, Morocco has placed the development of the ICT sector as one of its strategic priorities. In this framework, several roadmaps were adopted, through close partnerships with all stakeholders. The goals of the last roadmap, titled *Notes of General Guidelines for the Development of Telecommunications Sector to Horizon 2013*, are to support the accelerated development of the telecommunications market and to act against the digital divide, while providing the necessary transparency for the sector.

A few months before the end of this year, the results surpassed the set objectives. Indeed, the Moroccan telecommunications market has witnessed an unprecedented growth, especially in the segment of mobile phones and internet. The sector has equally witnessed an important drop in prices, which led to

“The Moroccan telecom market has witnessed unprecedented growth... which led to an increase in both the number of mobile phone and internet subscribers.”

Mr Abdelkader Amara
Morocco's former Minister of industry,
Trade and New Technologies

an increase in both the number of mobile phones which reached 39.9 million subscribers and internet subscribers which surpassed 4.8 million.

However, and as is the case with most countries, the massive downloads, the increasing number of internet users and the usage of new services (social networks, e-government, e-commerce, and e-education) necessitate more and more capacity in networks.

To take these changes into consideration and to respond to the current and future demands of users, Morocco has taken a new technological shift by adopting a national plan for the development of very high speed (THD) broadband which extends over 10 years.

This plan aims at making the access to telecommunications services available to the

whole population. The plan to be is carried out in two stages. The first stage, which is short term, revolves around the deployment of 4tG and Wi-Fi Outdoor networks. It also has to do with pilot projects for the development of FTTX and setting terms for connecting new buildings, residential and business areas to the fibre optic infrastructure of telecommunications.

With regards to the second stage, projected for the middle and long term, the plan essentially aims at reinforcing the fibre optic infrastructure of telecommunications as well as exploring the different technological solutions that can help to accelerate spreading the access to high speed networks for the whole population.

In Africa, no one doubts that this continent does not hesitate to follow the global shift pertaining to the development of technologies based on fibre optics.

Thus, Morocco, a nation to be reckoned with in the African ICT landscape, continues to support the issue of development of this sector in Africa and gets involved, by all means, in strengthening the cooperation in this domain, by combining, in particular, the efforts of the private sector and those of public institutions.”

Regulating For Progress

In the second part of our cover feature, **The Light Age** speaks with Mr Azdine El Mountassir Billah – Director-General of ANRT. The telecommunications regulatory authority in Morocco, ANRT was set up to ensure fair competition in the Moroccan telecommunications sector with the aim of driving growth in ICT towards the creation of a Knowledge society.

Where do you rank Morocco's telecom sector compared to MENA region countries in terms of penetration, technology and competition?

With regards to the MENA region, Morocco is relatively well-placed and its ranking differs according to indicators under consideration.

According to the last report of the World Economic Forum (WEF) on ICT published in 2013, using data from 2011, Morocco comes first,

among 57 other countries in the MENA region, as far as the competition in the telephone and internet market is concerned. The only country from MENA that appears side by side with Morocco is Turkey.

Concerning access to telecommunications and information technology services, Morocco also occupies an advanced rank regionally as well as internationally. This is especially so in mobile phones where the penetration rate – according to ITU (International Telecommunications Union) data – reached 121.73% at the end of June 2013. Thus we are ahead of countries in the MENA region.

Internet access is also on the up, and the rate of penetration – as at the end of June 2013 – was approximately 15% percent. At the close of 2012, Morocco registered a broadband and mobile penetration of 10%, a level that places us ahead of regional countries.



“Morocco is focused on providing very high speed broadband to 50% of the population within 15 years.”

Mr Azdine El Mountassir,
Director General of ANRT

The development in internet access has encouraged a passion among Moroccans for using ICT. This is reflected in the number of internet users coming close to 15.6 million, making the penetration rate among the population equivalent to 55%. For this indicator, Morocco stands out in comparison with other MENA countries.

The development with regard to usage and access to the internet is not limited to individuals but also includes households. As at the end of 2012, about 39% of Moroccan households had access to internet. This gives Morocco an advanced rank in comparison with some countries in the region.

Please tell us about the ANRT's main achievements in regard to regulatory regimes and how did they help attract investments to Morocco and increase them.

Since 1999, the Moroccan telecommunications market has witnessed important developments after the liberalisation of this sector. Indeed, many actions had been undertaken to start and promote competition. The liberalisation of the mobile phones market, granting licenses to satellite operators and the privatisation of the historic operator were the first achievements.

This process should continue as the Moroccan market has strong growth potential. The publication of the *Notes of the General Guidelines* concerning the sector created the transparency necessary for investors. Thus, the consolidation of the regulatory framework and the continuing liberalisation of the sector, through the introduction of competition in the other segments of the market following the

example of the mobile phone, are the main priorities.

The *Notes of the General Guidelines* for the period of 2004-2008, coincided with the revision of the regulatory framework, and restarted the liberalisation processes of the telecommunications sector. In 2005, two licenses for the new generation were granted, and 2006 was marked by the allocation of three licenses for third generation mobile phones as well as the implementation of a number of regulatory tools, to accompany the opening of the market process.

To prepare the ground for equitable competition, the ANRT undertook the supervision of individual telecommunications markets which resulted in the identification of relevant markets and the designation of capable operators, who were required to comply with adequate obligations to prevent any breach to healthy and fair competition.

This encouraged the new entrants to operate well in the telecommunications markets and resulted in the promotion of competition, the promotion of investment, and the growth of the market, which supported the interests of eventual consumers.

Since its creation, the Agency has adopted as an objective, the deployment of measures that help to trigger market competition while ensuring a balance between the profitability of private investments and the requirements of universal service.

Where do you see the future of FTTH in light of fierce competition from other technologies?

In 2012, the administrative council of the ANRT endorsed a national plan for the development of high and higher speed broadband. This plan, which aims at making access to high speed telecommunications services spread to the whole population of the kingdom in 10 years, will be achieved in two stages:

The first stage revolves, in the short term, around four axes. They are – the spreading of 4th generation mobile technologies, opening the Wi-Fi band to telecommunications operators to supply access for high speed networks outdoors, setting the terms of connecting new buildings, houses and areas of activity to the fibre optics infrastructure of telecommunications, and launching pilot projects to serve groups of population with fibre optics.

The second stage focuses primarily on strengthening the telecommunications infrastructure with fibre optics to guarantee a better quality of services rendered by the different networks of information, good connectivity of networks of different

national centres, and collection networks. In addition it looks at exploring different technological solutions to accelerate the access to high speed telecommunications services by the whole population of the kingdom (of Morocco), especially the inhabitants of distant areas that are difficult to reach.

What, in your opinion, are the factors or challenges that the massive deployment of FTTH is facing in Morocco and the MENA region in general?

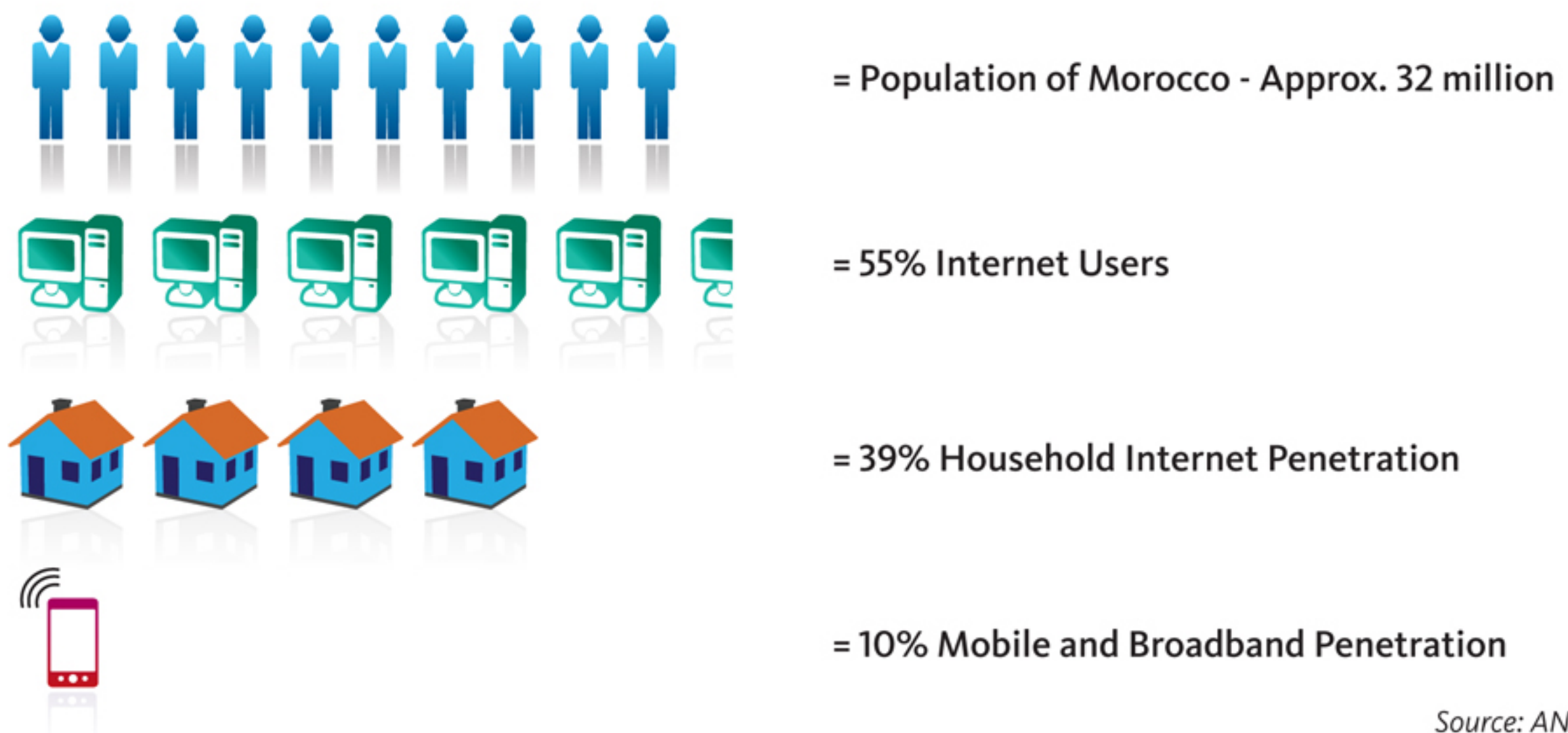
Beyond regulatory considerations which differ from one country to another, it is essentially a question of funding the deployment of Fibre Optic infrastructures that is the most intricate challenge.

Tell us more about your vision for the future of FTTH in Morocco in terms of 5 years, 10 years and 20 years from now.

The objectives of our plan to develop high and higher speed broadband within 10-15 years are as follows: 100% of the population will have access to the high speed broadband (minimum of 2 mbps), corresponding to all communities in the kingdom within 10 years, while 50% of the population will have access to very high speed broadband (minimum of 100 mbps), corresponding to 195 communities which are the most crowded (a little bit less than 2.5% of territory) within 15 years.

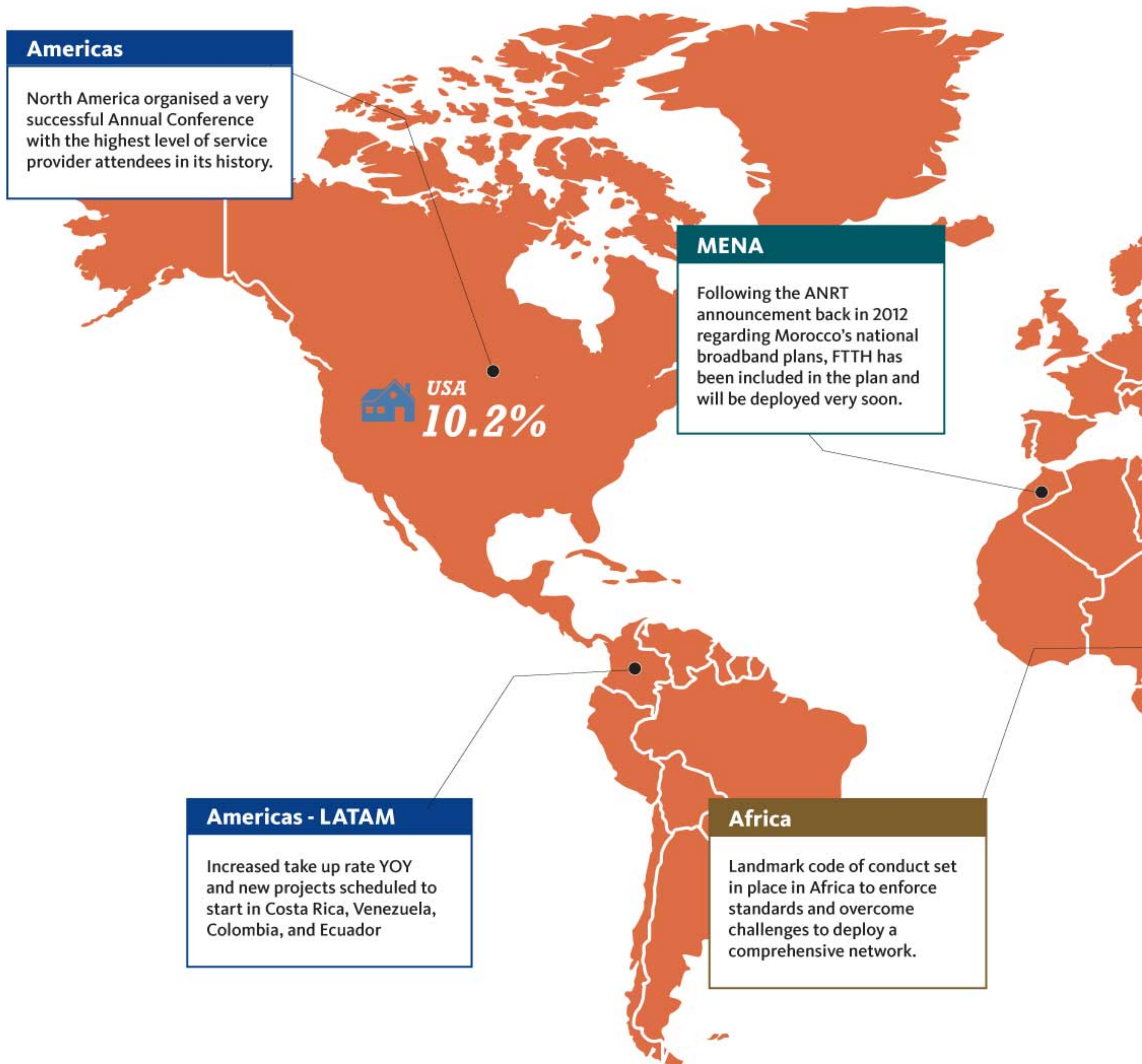
All the administrative public services situated in distant areas and/or the less fortunate will have access to high speed internet (minimum of 2 mbps) within 3 to 5 years.

Internet Penetration At A Glance In Morocco

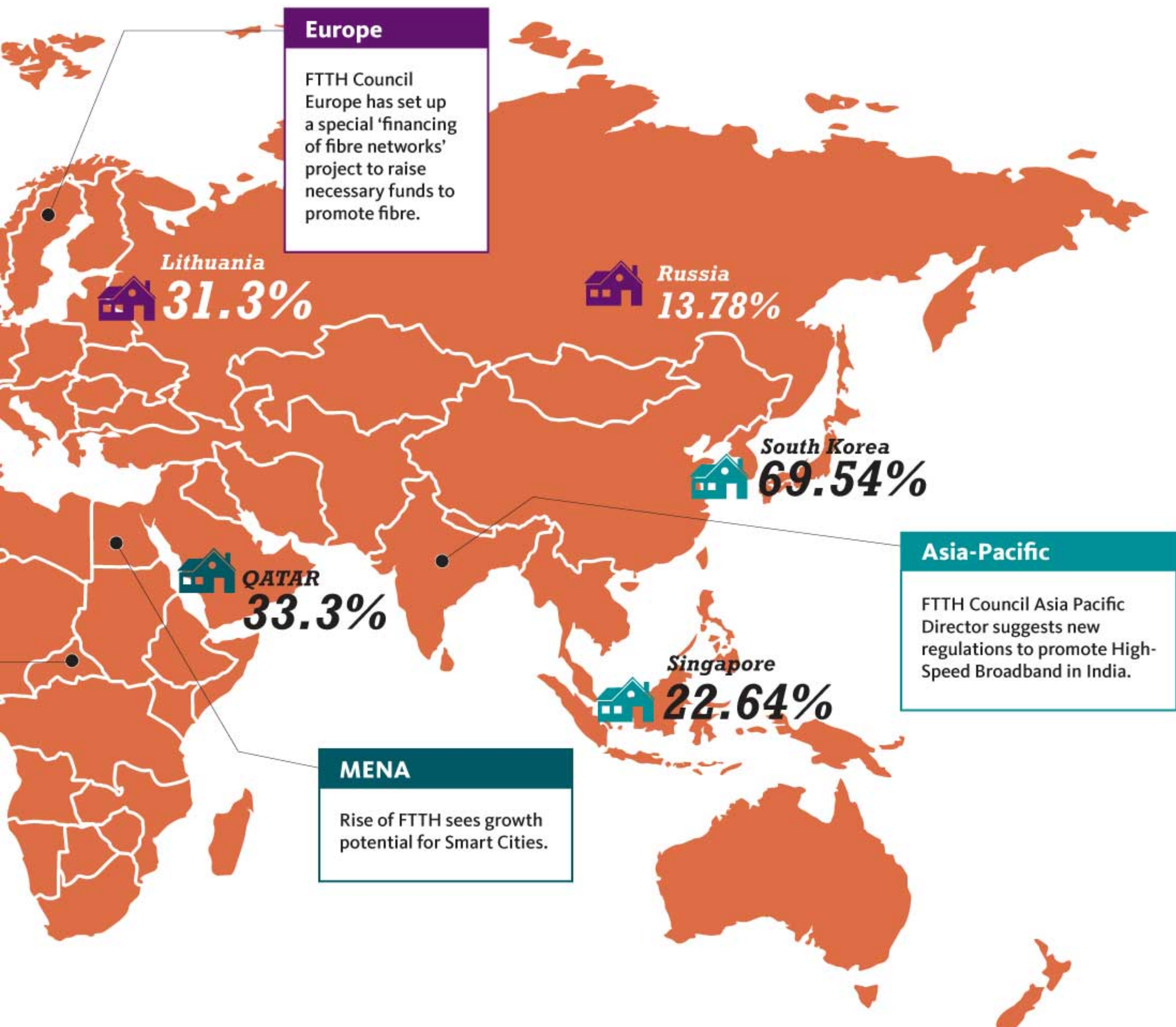


Source: ANRT

Fibre Round The World



An overview of the news and breakthroughs taking place in fibre optics across the five FTTH Council Regions.



Household Penetration at
December 2012



Meet The Council

*FTTH Council MENA
Enhances The Way We
Work, Live, Learn And Play*

Since its inception in 2009, the FTTH Council MENA has achieved many milestones and undertaken many activities and projects which it has been proud to report to its valued members. In addition, its Board of Directors, Committee Chairs and Members have been steadfast in bringing to life next generation solutions and applications which have the potential to change the way we work, live, learn and play.



Faris Awartani
Chairman of the Board of Directors

With 40 members having joined since 2011 and four committees chaired by Board members and advisors, the Council enjoys continuous commitment and support in its quest to reach its targets and fortify its presence. In addition, thanks to the efforts of the Chairman of its Board of Directors – Faris Awartani, who is also a Board Member and CEO of Moseco Group – the Council's activities have been successfully boosted, enabling it to reach its yearly targets.

Faris Awartani has over 20 years of experience in the telecommunication industry and has held many high ranking positions in the wireless telecommunications sector including being the

CEO of International Telecommunications and Electronic Corp (ITEC). Between 2001 and 2011, he ran operations in Saudi Arabia, Jordan, Palestine, Qatar and the UAE, and grew his business portfolio by creating Bazy Trading and Contracting in Saudi Arabia.

He also established many companies such as ESCO Jordan and ESCO Saudi which was the main dealer for Zain Jordan and Saudi, and also concluded a joint-

venture with Kathrein Germany which led to him founding Kathrein ME. In addition, Faris Awartani was a member of the International Chamber of Commerce of Jordan between 1997 and 1999, during which time he liaised between the International Chamber of Commerce and the International Chamber of Commerce office in Jordan.

Another key office bearer in the FTTH Council MENA is Christine Beylouni, who has been the Director General since July 2011, and is also a member of the FTTH Councils Global Alliance (FCGA). She has contributed to the success of the council by enrolling 40 members to the council's platform and has successfully managed its different activities through her collaboration with the committee chairs and members.

Christine Beylouni has 15 years of experience in the ICT industry with an extensive international background focusing on international business and regulatory issues. In recent years, she has headed strategic regional and international affairs within organisations including operators. In this capacity, she has helped grow their regional and global business by concluding many partnerships with international operators and associations with regards to international connectivity and general matters. In addition she regularly coordinates with regulators to ensure compliance in the areas of Commercial & Consumer Affairs, Numbering Plan, Spectrum & Frequencies Allocation.

Policy and Regulatory Committee

Chaired by Tony Al Makdissi, an FTTH Council MENA Board Member since January 2013, this committee takes the lead in establishing the appropriate communication channels with the Regulatory Authorities and Ministries bringing the Council one step closer to reaching its objectives. It ensures the full compliance of the technology with in-country regulatory requirements, forecasting and preventing any possible limitations for FTTH deployment.

Tony Al Makdissi is part of Cisco's Corporate Compliance team for the Middle East and Pakistan in the overall emerging markets theatre. He occupies a multifaceted role encompassing internal and external liaison with telecom regulators and ministries. In addition, he works on product compliance and certification related tasks for the Arab world.



Christine Beylouni
Director General of the FTTH Council



Tony Al Makdissi
Chair of the Regulatory and Policy Committee

Technology and Training Committee

This committee, chaired by Gamal Hegazi, who has been a Board Member of the FTTH Council MENA since 2011, emphasises FTTH technology and expertise diffusion as an important pillar for promoting FTTH in the MENA region. Through this focus, the FTTH Council MENA is able to present an agnostic view of the technology and catalyse the industry to move forward and adopt FTTH with more ease and assurance. The committee also organises the quarterly FOA FTTH Certification training programmes across the region which aim to diffuse FTTH technical know-how and certify technical staff to work on FTTH projects as operators, system integrators and contractors. Four training sessions have been organised since July 2012 in Beirut, Amman, Riyadh and Dubai.

Gamal Hegazi is a Solution architect with Alcatel-Lucent Solutions & Marketing with responsibilities ranging from network design & architecture, business development, and Solution marketing for the Africa and Middle East regions. This 15-year veteran of the ICT industry has also worked with the Egyptian Cabinet Information and Decision Support Center (IDSC) participating in the introduction of Internet service to Egypt with technical responsibilities ranging from planning to implementation of the ISP setup of the IDSC.



Gamal Hegazi
Chair of the Technology and Training Committee



Dr Suleiman Al Hedaithy
Chair of the Market Intelligence and
Development Committee

Market Development and Intelligence Committee

Chaired by Dr Suleiman Al Hedaithy, Board Member of FTTH Council MENA since 2011, this committee plays a vital role in promoting and encouraging FTTH deployments throughout the MENA region. Owing to its efforts in coordinating with members and industry stakeholders, it keeps abreast of the latest FTTH infrastructure developments.

It also monitors FTTH rollout projects in the MENA region through its market panorama studies which aim to encourage governmental agencies to support and facilitate national strategy decision-making towards the development of next generation fibre networks.

Since 2006, Dr Suleiman Al Hedaithy has also been the president of Middle East Fiber Cable Manufacturing Co. (MEFC) located in Riyadh, Saudi Arabia. During the past five years, MEFC has expanded its operations to be the largest producer of optical fibre cables and related products in Middle East.

Previously, for more than 20 years, Dr Al Hedaithy worked in the Ministry of Defense and Aviation where he actively

participated in the development of the 'National Science & Technology Plan' and the 'National Information Technology Plan' representing the Ministry at the national level.

Smart Cities and Apps and Ops Committee

Recently created by the Council, this committee is chaired by Richard Jones, Advisor to the FTTH Council MENA. It helps promote and support both deployments and applications across the extraordinary range of developments in the MENA region and emphasises the benefits for Smart Cities, campuses and other real estate developments in the MENA region.

Richard Jones from Ventura Team has consulted extensively across the region on topics from strategy and business planning through to deployment and commercial launch. He also brings access to learning through his company's FTTH start-up in Sweden (now rated number 4 in the world for broadband service value) and Ventura Next – building on his market-leading experience of creating and running open access deployments in Sweden and across the world.



Richard Jones
Chair of the MENA Smart Cities and
Apps and Ops Committee

The FTTH Council MENA would like to invite members and interested candidates to join it and its committees to further enhance the Council's mission in the Middle East and North Africa as the leader in FTTH penetration.



Smart Cities in MENA

By Richard Jones,
Chairman, Smart Cities and Apps and Ops Committee – FTTH Council MENA
richard@venturateam.com

An increasingly popular term among urban planners today, a Smart City refers to a conurbation where municipal management is at its highest and most efficient level. Although we talk about Smart Cities in the industry, I'd rather like to change the name as I think it confuses discussions about the different technologies and services that can be applied from our industry. Smart Cities are the result of a philosophy of achieving excellence in a number of areas – made possible by the fact they are often completely new developments.



Richard Jones is a partner in Ventura Team, a consultancy that works with leading FTTH projects around the world but also has built its own operator in Sweden with 155,000 customers and ranked top-5 in the world for service value. He is also a founder of Ventura Next, which designs builds and runs very efficient networks for network owners.

Working with a 'clean sheet' enables more effective delivery of existing services, creation of new services and efficiency in the use of power and water, as well as careful management of waste and recycling. In the middle of this we expect world class telecoms.

The problem with the term Smart Cities is that there aren't that many of them. There are however, many more 'smart developments' where these technologies can be applied. The Burj Khalifa, the world's tallest structure, is a 'smart city' as we understand the term, but in a single building. Similarly, campuses and gated communities are not strictly 'smart cities' and yet many of the innovations above could be applied to them.

The second concept that needs challenging is the idea that the development has to be new. Some of the technologies and approaches can equally well be applied to existing buildings, villages, developments etc.


In the telecoms arena, these developments (whether new or existing) enable us to deliver ultra-connectivity to individuals and businesses. The fibre backbone provides near limitless bandwidth over which fixed and mobile services can be deployed. However, we should not think in terms of those The second concept that needs challenging is the idea that the development has to be new. Some of the technologies and approaches can equally well be applied to existing buildings, villages, developments etc.

The overlaying of super-fast FTTH with mobile connectivity and widespread WiFi means people within the smart development can

Continued on pg 18

Process from Order to Delivery of a New Service in a 'Smart' Newtwork

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3. Service is started 20 milliseconds later

Source: Richard Jones

Continued from pg 16



According to Richard Jones – the Chairman of the FTTH Council MENA's Smart Cities, Applications and Content Committee – the Burj Khalifa in Dubai has the characteristics of a Smart City albeit in a single building.

access communication and other services wherever they are.

Let's consider our industry's customers in smart developments

If we put ourselves in the mind of the developers for a moment (always good to think like your potential customer), then we would find that many of them have been disappointed in the provision of services by operators. This is particularly true where there is a complete or near-monopoly in the telecoms market.

The less competition there is, the less that companies are driven to respond to customer expectations. If there is no real choice, then why spend money and effort in being great when good enough will do?

The failure to deliver to the developer is frustrating as poor telecoms services reflect badly on the development and may not fit in with the 'world-class' approach that is taken in every other area. It is clearly unacceptable for tenants to wait months for connectivity or new services and yet it happens.

A Revolution in Service Delivery

One approach that alleviates some of the issues above, and which also creates some

real positives for a development, is to use open-access. Having multiple providers offering services to subscribers creates a number of clear benefits:

1. There are more services and potentially more types of services available – leading to higher take-up rates
2. Competition generates a drive to create and deploy new services.
3. Operators are more willing to agree to Service Level Agreements.
4. Quality of Service is improved as operators understand subscribers do have a choice.

However there are also more subtle, additional benefits for developers. By going the open-access route, they retain 'ownership' of the network and so can add in services of their own on top of the operators' services. This means that security, monitoring, information and other services localised to the development are available to residents and remain under the control of the developer.

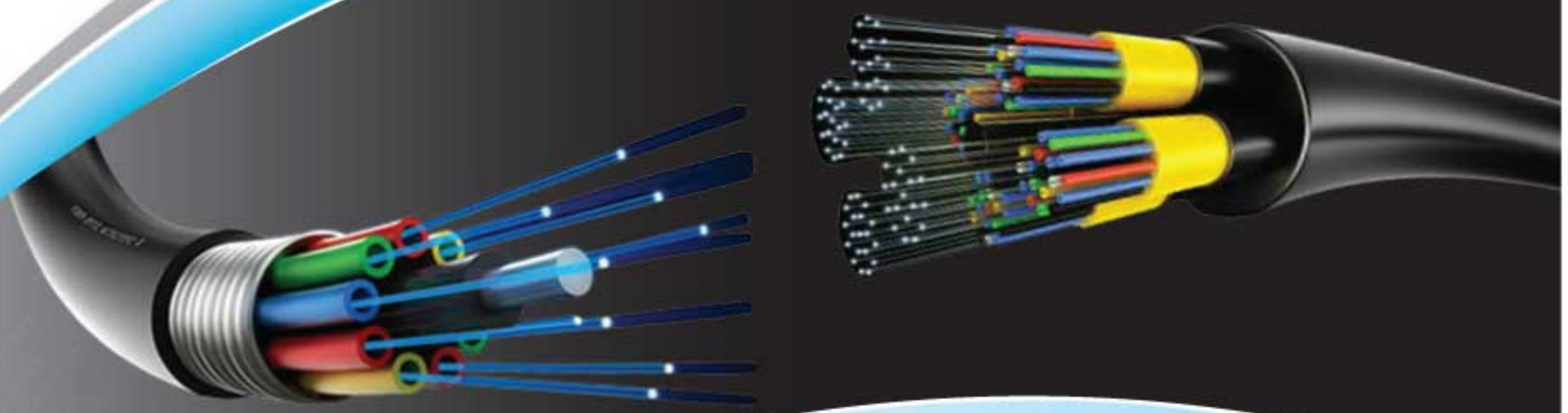
The term Smart Cities is limiting as outlined above but the creation and management of these smart networks within smart developments is absolutely the focus of a new committee formed by the FTTH Council MENA. The committee will be addressing some of the challenges as well as passing on learning and best practice. I'd like to invite you to get in touch with any questions, issues or input that you may have about creating and managing these 'ultimate' next generation networks.



Connecting the Globe

mefc

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Middle East Fiber Cable Manufacturing Co.



Middle East Fiber Cable Manufacturing Co.

a Saudi-Japanese (Fujikura) partnership Co.. Based in Riyadh, Saudi Arabia. Established in the Year 1995 to produce Fiber Optic Cables to meet the demand of Middle East and Global Market.

In very short time, MEFC achieved Excellence Quality Reputation and Market Share in the Gulf, Middle East and Africa with the trust of its customers MEFC had will established its wide base of customers, and penetrated MENA market.

Based on its quality, performance and commitment MEFC had gained the approval of the major customers and won many prestigious projects in Gulf and MENA region.

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Digitising Qatar

*By Mohamed Madhoun, Chief Commercial Officer –
Qatar National Broadband Network*

As one of the first open-network government-funded initiatives in the region, Qatar National Broadband Network (Qnbn) is fast-tracking ICT development in Qatar. In building a fast, robust, safe and secure infrastructure to support the Qatar National Vision 2030, Qnbn employs the latest technology platforms to ensure that the state is on track to become a multi-faceted, knowledge-based and sustainable economy.



Mohamed Madhoun has held leadership roles in Motorola Networks and Nokia Siemens Networks.

Qnbn was born out of the need for the prudent management of Qatar's vast hydrocarbon reserves. It includes building human capital on the back of its immense wealth, and ICT is a conduit in realising this as well as encouraging the private sector to flourish.

The network is empowering the nation with the most advanced infrastructure such as 100+ faster internet, and is set to transform the Qatari way of life by enhancing education services, supporting the growth of business, reducing the carbon footprint and providing an ICT foundation for future generations. By introducing real and perceivable differences in accessing cloud services, the network will be instrumental in connecting educational, health and government bodies with the community, boosting the responsiveness of e-government and e-health programmes.

Fully-owned and funded by the government through of equity and grants, Qnbn focuses on the deployment of a passive dark fibre network infrastructure, providing equal and open access to telecommunication

service providers, on a wholesale basis, and owners and operators of private networks, on a retail basis.

By ensuring a collaborative and participatory approach to achieving a digital economy, the social and economic benefits envisioned by Qnbn will be accomplished as more people are connected.

Following the government's award of a 25-year license in 2012, Qnbn has been collaborating with local authorities to leverage public infrastructure investment and streamline planning approval procedures which are critical to Qatar's rapid growth. On-the-ground, Qnbn's passive fibre network is starting to connect major residential and business centres and has concluded agreements with major developers and government entities. By taking on a significant portion of the infrastructure cost, Qnbn provides operators the opportunity to allocate more of their resources to innovation, customer service and research.

With the fibre network, end-users will benefit from more choice in selecting telecom operators for high-speed, and safe and secure internet services at competitive rates. In recognition of its outstanding innovation, Qnbn won the 'World Finance Award for Best Innovation (Middle East)' in 2012 at the London Stock Exchange. The award acknowledges Qnbn's transformative effect in shaping community and enterprise advancement through high-speed telecommunications, and is testament to Qnbn's commitment to making Qatar one of the best connected countries in the world.

The 5th edition of FTTH Council MENA Conference

FTTH, The New Era of Digital Transformation

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FTTH Council MENA is pleased to invite you to the 5th edition of its annual Conference and Exhibition which will be held **under the Patronage of the Ministry of Industry, Trade, Investment and the Digital Economy of Morocco** on 27 and 28 November 2013 in Marrakech, Morocco.

Following the previous conferences and with the collaboration of ANRT, FTTH Council MENA will increase this success with high-quality conference program under the theme **"FTTH, the New Era of Digital Transformation"** which will highlight the benefits of the FTTH deployment for operators, governments and consumers.

Same as every year high level speakers and exhibitors will be participating in the event attracting visitors from the regions worldwide and ensure large networking and business opportunities.

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Enforcing Standards

*FTTH Council Africa
Introduces Landmark Code*



Numerous investment opportunities in Africa have placed the region's fibre network growth among the fastest in the world. Nevertheless, inadequate legislation in several countries stands in the way of smooth infrastructure rollout, which is key to attracting potential investors. To address this, the FTTH Council Africa has established a Code of Conduct which was signed by all 36 members in August.

"Africa is behind the curve in terms of the regulatory regime necessary for coordinated infrastructure delivery. Authorities need to streamline processes and reduce the red tape involved in completing processes like right-of-way approvals."

Richard Came,
President of the FTTH Council Africa

A well-connected fibre network will mean vastly improved efficiency and effectiveness for companies in a broad range of industries, not just limited to telecommunications. At the same time, the FTTH Council Africa recognised the challenges faced by local governments in balancing the need to properly manage their assets while quickly and effectively deploying a comprehensive network.

"It was with that in mind that we have developed a Code of Conduct for our member organisations in the telecommunications industry. We made this document available to local authorities for their input and the response was extremely positive," said Richard Came, President of the FTTH Council Africa.

The Code prescribes principles of technical excellence, quality and safety among member

organisations, and signatories pledge to prevent hazardous working conditions and avoidable damage to infrastructure. It also promotes cooperation between industry players and local authorities, and consideration for the assets and property of others when carrying out installation work.

Regional Regulations

In the past, players in the region's fibre industry had no standard regulations, operating disconnectedly and often incurring cost duplication. Ultimately, the goal is for governments to become more comfortable with quickly and effectively issuing approvals for way leaves, environmental impact assessments and water-use licenses, among others.

Thus, the Code goes a long way towards streamlining and simplifying the government approval process. In addition, self-regulation by Council members also provides all levels of government with a surety of exemplary conduct.

"The legislative and regulatory environment does not currently call for ethical codes of practice and how member companies conduct themselves. We have taken it upon ourselves as an industry organisation to fulfil that role," Came added.



Representatives from 36 FTTH Council Africa members at the signing of the Code of Conduct in August this year.



The Code of Conduct, which was established by the FTTH Council Africa, binds members to following a set of principles which encompasses technical, operational and ethical details. This ensures that fibre industry activities such as installation and network testing (pictured) are conducted with the best possible quality.

Speaking further on the importance of self-regulation for the fibre optics industry in Africa, the FTTH Council Africa President said, “A well regulated environment stimulates investment and also saves money as project delivery times can largely be guaranteed. Self-regulation allows the industry to set new standards and improve efficiencies which are conducive to the growth of the industry.”

For Richard Came, another benefit of self-regulation for the fibre optics sector in Africa through industry organisations such as the FTTH Council is because they have a better view of the issues at hand as well as knowledge of what policies are needed to resolve them. In addition, it demonstrates a willingness to cooperate with the authorities and smooth working relationships with the powers-that-be.

At the end of the day, self-regulation is all about approaching issues with common sense. According to Richard Came, in order for it to be effective, it requires a buy-in from all parties. He is therefore pleased that the Code of Conduct received “overwhelming support from members” as it “shows keenness from the industry to

demonstrate their willingness to deliver with integrity consistent and high-quality work.”

The Code protects and safeguards the rights of all stakeholders involved, from fibre installation companies and their employees, to landowners and end-users of the technology. As fibre continues to rapidly expand, the FTTH Council Africa is moving to bolster existing regulatory frameworks.

Ultimately, as Richard Came – the President of the FTTH Council Africa – said, “It is up to the individual businesses to not only adopt the Code of Conduct, but also to observe it in the spirit for which it is intended.” The positive response from the signatories creates confidence that this will be adhered to.



Components and accessories for fibre optic telecommunications networks

Telecommunications networks are evolving throughout the world in order to satisfy the increasing demand for high speed data services.

Components and accessories for fibre optic telecommunications networks are now being produced by the new C_FTTS division of the Camozzi Group.

- ▶ No Metal Parts
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- ▶ Easy "Push-In" Connection
- ▶ Direct Buried (DB) Applications
- ▶ CEI EN50411-2-8



A Call To Action

Ever since the sovereign debt crisis hit certain members of the European Union in 2008, Europe has been experiencing a period of economic malaise that has seen business performance and overall GDP growth stagnate. Undoubtedly new life needs to be breathed into the European economy. One way is to adopt ultra-high-speed broadband that will allow European nations and corporations to harness the true potential of the information highway and enhance competitiveness and performance.



Ultra-high-speed internet connectivity allows people to send and receive real time information and help in the conduct of business. And fibre optics is the only future-proof way of doing so.

The potential and promise of broadband cannot be overestimated. According to the Organisation for Economic Cooperation and Development (OECD) and consultancy Arthur D Little, every 10% increase in broadband penetration brings about a 1% to 1.5% growth in GDP. In addition, the European Commission (EC) aims for all households in the region to have access to download speeds of at least 30 Mbps and half of the households to have access to speeds of 100 Mbps by the year 2020. This is one of the goals of the Digital Agenda for Europe (DAE).

According to Karin Ahl, President of the FTTH Council Europe, the internet, broadband and next generation ICT are pillars on which

Europe's future will be built. The only future-proof way to bring that about is to embrace fibre optics. The question though is whether European governments are doing enough to realise that.

The EC urges the member states to set up national broadband plans to meet the DAE targets. Only 21 countries have already established such plans, but several of them still do not fully focus on the DAE broadband targets. Furthermore, the FTTH Council

“The EU needs strong leadership and decision-makers who understand the long-term impact of broadband and ICT. If they make the right decisions today, they will ensure Europe gets the broadband it needs to succeed on the global market by 2020 and beyond.”

Karin Ahl,
President of FTTH Council Europe

Europe observes that there is not enough construction of necessary ultra-high-speed broadband networks. Europe is lagging in FTTH household penetration compared to other regions.

According to an IDATE report, at the end of 2012, Europe had 7.3 million FTTH/B subscribers while there were 80 million in the Asia Pacific region and 11.1 million in North America.

Facing Challenges

There are a number of reasons for this sluggish performance. As Karin Ahl noted, several challenges have been posed from sceptics who question the market need for FTTH and claim that financing networks is not possible, as well as argue that Europe faces more pressing problems than the lack of fibre access broadband.

An FTTH Council Europe study on take-up rates however, shows that there is a demand for high-speed fibre connectivity even though prices may be a premium. As Ahl pointed out, “Take up is a question of time and consumers who have experienced high bandwidth and quality of services are very loyal.”

As for the perceived problem of cost, Karin Ahl revealed that several studies have been



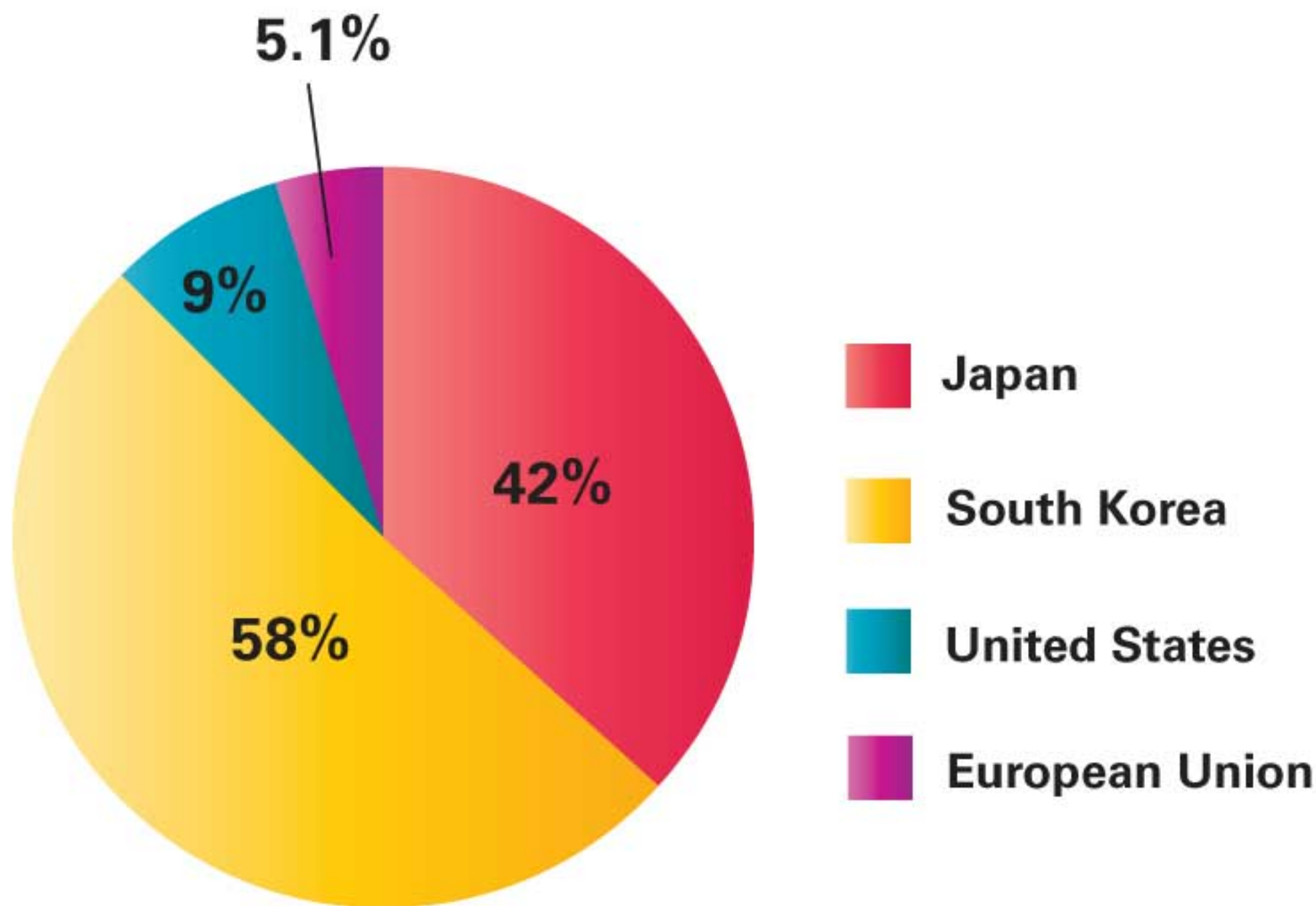
conducted on the issue and the FTTH Council Europe has set up a special ‘financing of fibre networks’ project to enable the raising of funds. In fact, delivering fibre to nearly all European households will cost Euro200 billion – less than half of many other cost estimations. In addition, there is also increased interest in fibre optics from institutional investors such as pension funds and investment banks.

A compelling argument for FTTH lies in the fact that fibre access networks are a must in the fast-paced world of business today. “Also,” Ahl highlighted, “FTTH-enabled applications and services in healthcare, teleworking and home entertainment will ensure Europe remains a global economic leader.”

Another challenge facing the take-up of ultra-high-speed broadband is that consumers have been burnt by incidents where speeds delivered do not match that which is promised. According to Prof Hartwig Tauber – the Director General of the FTTH Council Europe – this is because of the lack of transparency to the end-user. Indeed, operators often misuse the word ‘Fibre’ for packages where in fact other technologies than FTTH are offered.

He urges providers who have yet to embrace fibre to do so, rather than mislead consumers of the capabilities of their networks. In addition, he also criticised those who claim that

FTTH/B as a Percentage of Fixed Broadband Lines



Source: Digital Agenda Scoreboard

According to the Digital Agenda Scorecard, Europe is lagging behind in the uptake of FTTH/B – a situation which has raised the concern of the FTTH Council Europe.

“copper is still viable because consumers do not need higher speeds” as “hindering the development of innovative services, including those that have a great socio-economic benefit.”

Positive Signs

There are some bright sparks. For instance, in Munich, Germany, utility company SWM has worked with telecom operator M-net to invest Euro250 million to build an FTTH network and connect 350,000 or more than half of the homes in the city. In Stockholm, Sweden, the government has set up Stokab, an organisation that has built a wholesale FTTH network – without using taxpayers money – and is leasing it out to private service providers and other business customers, at a profit.

In the Netherlands, a partnership between a group of private investors and telecoms operator KPN has already connected 1 million homes to fibre, out of which 40% are subscribers. It hopes to extend coverage to most of the country within the next 10 years. In the UK, the CityFibre project is aiming to provide FTTH to 1 million homes and 50,000 businesses in second-tier cities such as Birmingham, Manchester, and Glasgow.

Recently, in France, the government announced that it will be investing Euro20 billion in ultra high speed networks with a focus on future-proof fibre optics. This move was welcomed by the FTTH Council Europe, and Karin Ahl expressed a hope that other EU member states will follow the French example.

Disappointing Response

As a region however, the EU’s response to fibre has been rather disappointing. Two weeks prior to the French government’s decision to invest in fibre optics, the EU reduced the broadband budget in the Connecting Europe Facility (CEF) – which is part of the DAE – from Euro9 billion to Euro1 billion. This effectively places the onus on



“How can an end-user imagine the ‘wow!’ feeling of a fibre connection that really delivers 100 Mbps when he only gets an disappointing ‘up to’-experience on a DSL or cable connection? Nobody would buy an ‘up to’ 1 litre milk package at the supermarket – even when the producer gives an estimation that there will be up to $\frac{3}{4}$ of a litre in it. So, why do end-users still accept this on broadband? And why do consumer protection organisations still accept it?”

Hartwig Tauber,
Director General of FTTH Council
Europe

driving fibre penetration on the shoulders of individual member states. It also raises questions about the EU's commitment to the DAE.

It is no surprise that the FTTH Council Europe is disappointed by the EU's decision. Speaking on the subject, Prof Hartwig Tauber said, “While governments all over the world increase their efforts to ensure the availability of future proof-broadband connections for their citizens, the European Union has just missed an important chance to make the right decision, not only for the years to come, but also, and more importantly, for the future of a competitive Europe.”

The lacklustre response by the EC to the results of the Digital Agenda Scorecard, which were published on the 12th of June this year, has also been criticised by the FTTH Council Europe. According to the Scorecard, although Europe has a marginal (4%) lead

in terms of households with Next Generation Access (NGA) over the United States, it is mostly through upgraded copper, whereas in the US, FTTH dominates.

In other words, Europe is not future-proofing its networks and risks losing any competitive edge. Furthermore, it also brings into doubt the progress of the DAE, in particular the broadband infrastructure project.

For Prof Tauber, regulatory policies should endorse part of the blame. He pointed out that, “European policy makes no distinction between the regulatory regime for low cost copper upgrades and more expensive but future-proof fibre to the home investments. The result is that regulatory policies effectively promote copper upgrades. Prioritising copper upgrades and making the pricing regime for copper a central element of the Single Market reforms shows a lack of vision that does not augur well for Europe.”

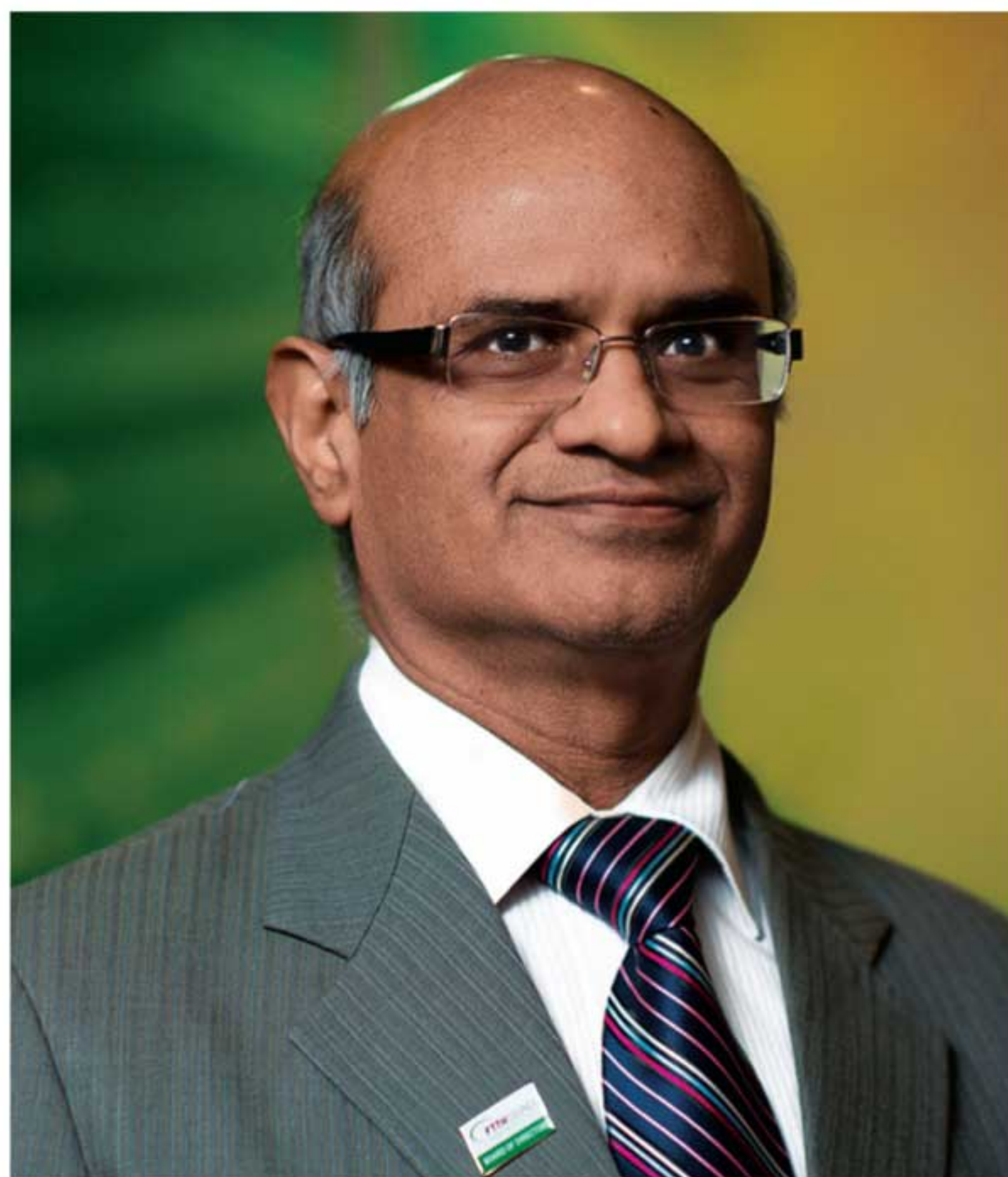
The FTTH Council Europe remains firmly committed to promoting the take-up of fibre optics networks and to create a positive environment for fibre investments in the region. There is no other option. If Europe wants to be in the lead again, it should – in the words of Karin Ahl – “Embrace future-proof broadband now” by harnessing the power of fibre.

Rethinking Regulation

Integrating Infrastructure for Consumer Choice



The passing of the 2012 National Telecom Policy by India's Parliament as well as national broadband policy developments in regional neighbours, like South Korea, Australia, China and Malaysia, have led Kuldeep Goyal, Director on the Board of Directors, FTTH Council Asia-Pacific, to believe that conditions are ripe for a regulation revamp in India.



“Governments should encourage independent optical fibre infrastructure providers to build optical fibre access networks which can be shared by multiple service providers, giving choice to consumers.”

Kuldeep Goyal, Director on the Board of Directors, FTTH Council Asia-Pacific

Launched in 2012, India's National Telecom Policy (NTP) sets very ambitious targets for broadband rollout across the country. It seeks to provide end-users with reliable and affordable broadband-on-demand services by 2015, and achieve 175 million broadband connections two years after that. This number is intended to rise to 600 million by 2020. Under the policy, broadband operators will need to provide connections with minimum



India's 2012 National Telecom Policy places special emphasis on leveraging fibre optics to provide reliable and affordable broadband access to rural and remote areas.

speeds of 2 Mbps, as well as faster options beginning at 100 Mbps.

As many as 134 countries have already formed a national broadband plan, actuating the rollout of cutting-edge high-speed networks all around the world. Apart from this, 20 countries have designated broadband right, a citizen's right or a constitutional right. These factors, in addition to the fact that broadband infrastructure shows a strong link to GDP growth in every country in which it is deployed, have led Goyal to strategically reconsider certain aspects of broadband regulation in India.

Equality of Access

The first area under review concerns last-mile optical fibre access networks, which offer virtually unlimited bandwidth. According to Goyal, this is a vital linchpin in realising the NTP's broadband targets. Although there are clear legislative provisions for passive

infrastructure-sharing under India's policy, there is an urgent need for regulators to grant access for active infrastructure-sharing as well.

In Goyal's view, governing bodies should encourage independent infrastructure providers to build networks that can be shared among multiple service providers, in order to avoid cost duplications. This approach also safeguards the consumer's right of access to multiple operators, allowing them to choose their preferred option.

The second area that Kuldeep Goyal outlines, relates to emulating the 'Emblem' building rating system that is currently in effect in South Korea. This system requires building owners to obtain and display certifications indicating the level of internet connectivity available at each premise. The highest rating is typically reserved for direct fibre connections to homes or offices, which offer speeds of at least 100 Mbps. On the other hand, facilities which are equipped with fibre to the building (FTTB) technology and connection speeds of 50 to 100 Mbps, usually place second.

To further justify the merit of such a strategy, Goyal points to Malaysia's adoption of a similar approach under its national fibre implementation plan, dubbed the National Broadband Initiative (NBI). He also calls attention to the efforts of numerous other countries across Asia which are currently considering including similar initiatives under their respective national broadband programmes.

Under the 2012 National Telecom Policy, the Indian government seeks to transform towns and cities such as Mumbai (pictured here) into 'always connected' societies by developing policies and guidelines supporting smooth FTTH infrastructure rollout.

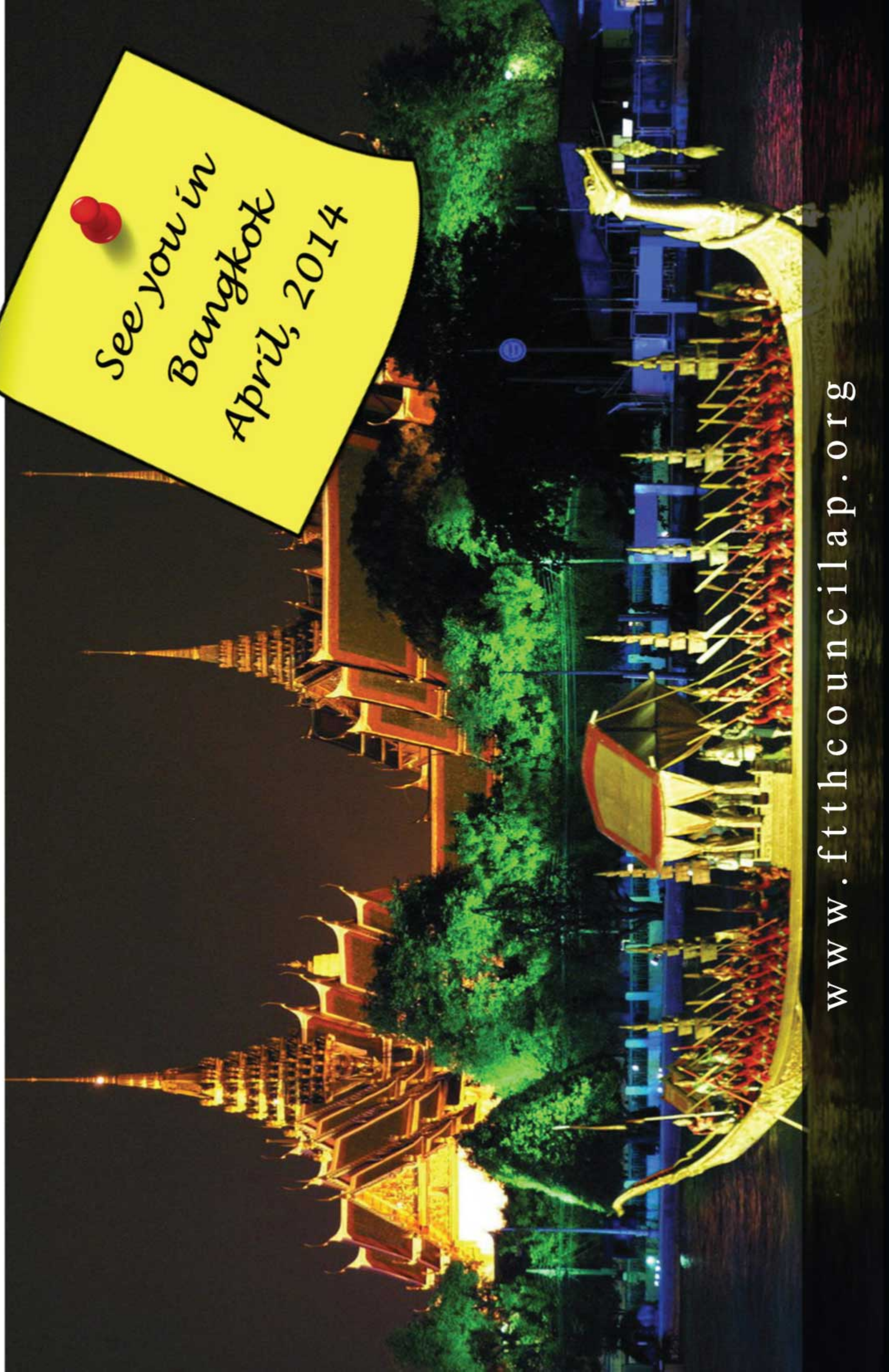


The final area that Goyal recommends for review, is the installation of fibre infrastructure as a compulsory amenity in all new constructions. Just like water, electricity, sewerage, housing area road networks and storm water drain systems, he argues that high speed broadband infrastructure can be included as a one-time cost to building owners. To enforce this, he suggests that building completion certificates should not be issued to builders until this facility is incorporated and inspected.

National legislation in Australia and China is already ensuring these initiatives are

being implemented. In fact, the Chinese regulations even prescribe detailed requirements for the design, construction and inspection of FTTH infrastructure in all new buildings. First, all new residences located in counties and cities with a public fibre optic telecom network must be equipped with fibre network connections. All residential FTTH installations must also provide fair network access to multiple service providers, allowing consumers to choose their preferred operator. Finally, underground telecom conduits and wiring networks, as well as equipment rooms and other new facilities, must be constructed and inspected in tandem, to ensure FTTH compatibility.

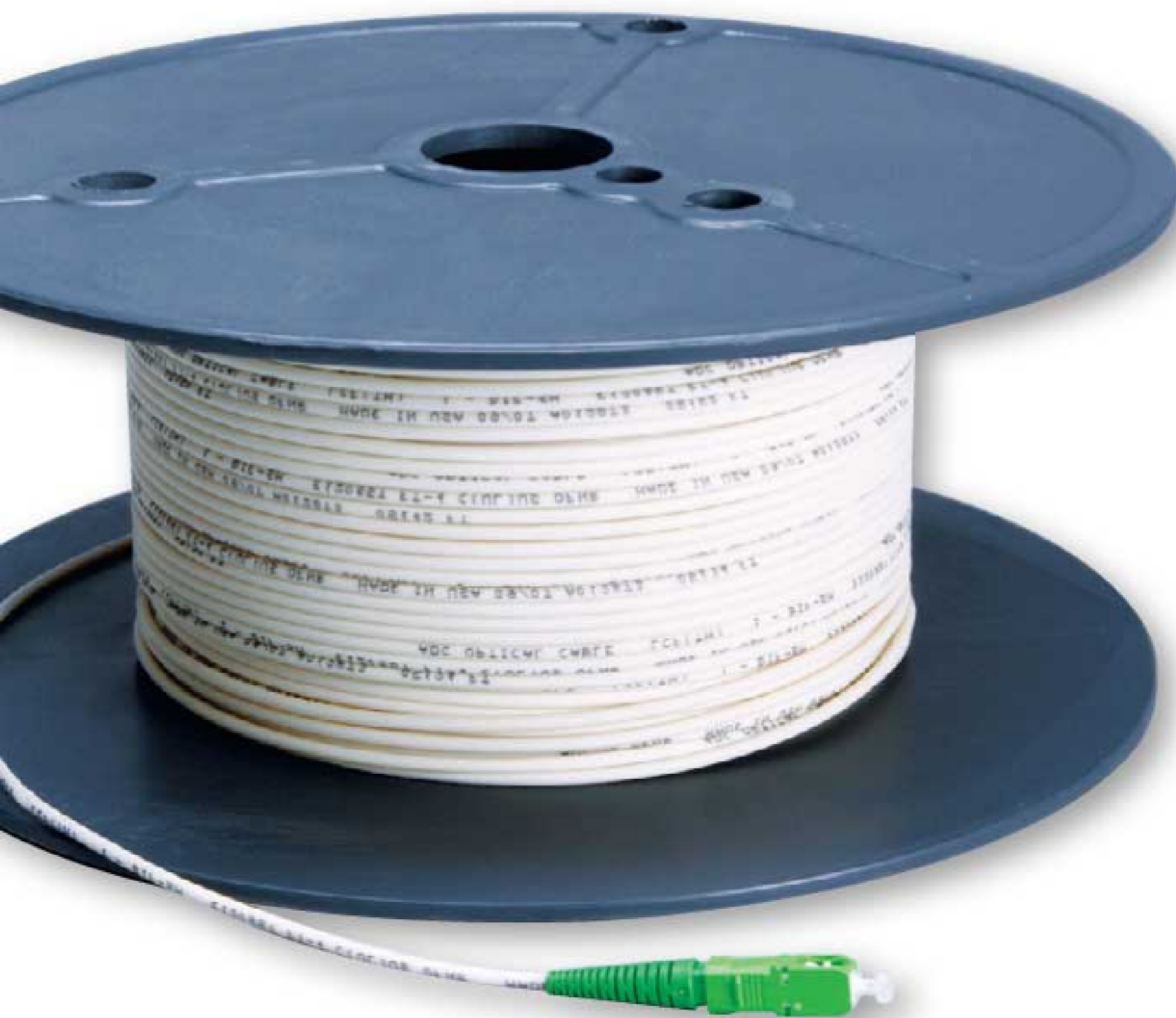
It is indeed an exciting time for ultra high-speed broadband in India. With a national broadband policy recently put in place, the government looks poised to augment the private-sector push for fibre network proliferation across the country.



Drop-cable Solutions

TE Connectivity Ensures Reliability

As service providers continue to expand their deployment of fibre-to-the-premise (FTTP) networks, primarily targeting single-family residences and multi-dwelling units, the aim is to deploy a flexible and reliable infrastructure at the lowest possible cost. One such solution is the universal service drop cable, designed to save construction time and money as well as to ensure network reliability. Enter TE Connectivity's RealFlex universal drop cables.



TE Connectivity's RealFlex cables allow for efficient, reliable and cost effective deployment of fibre connections.

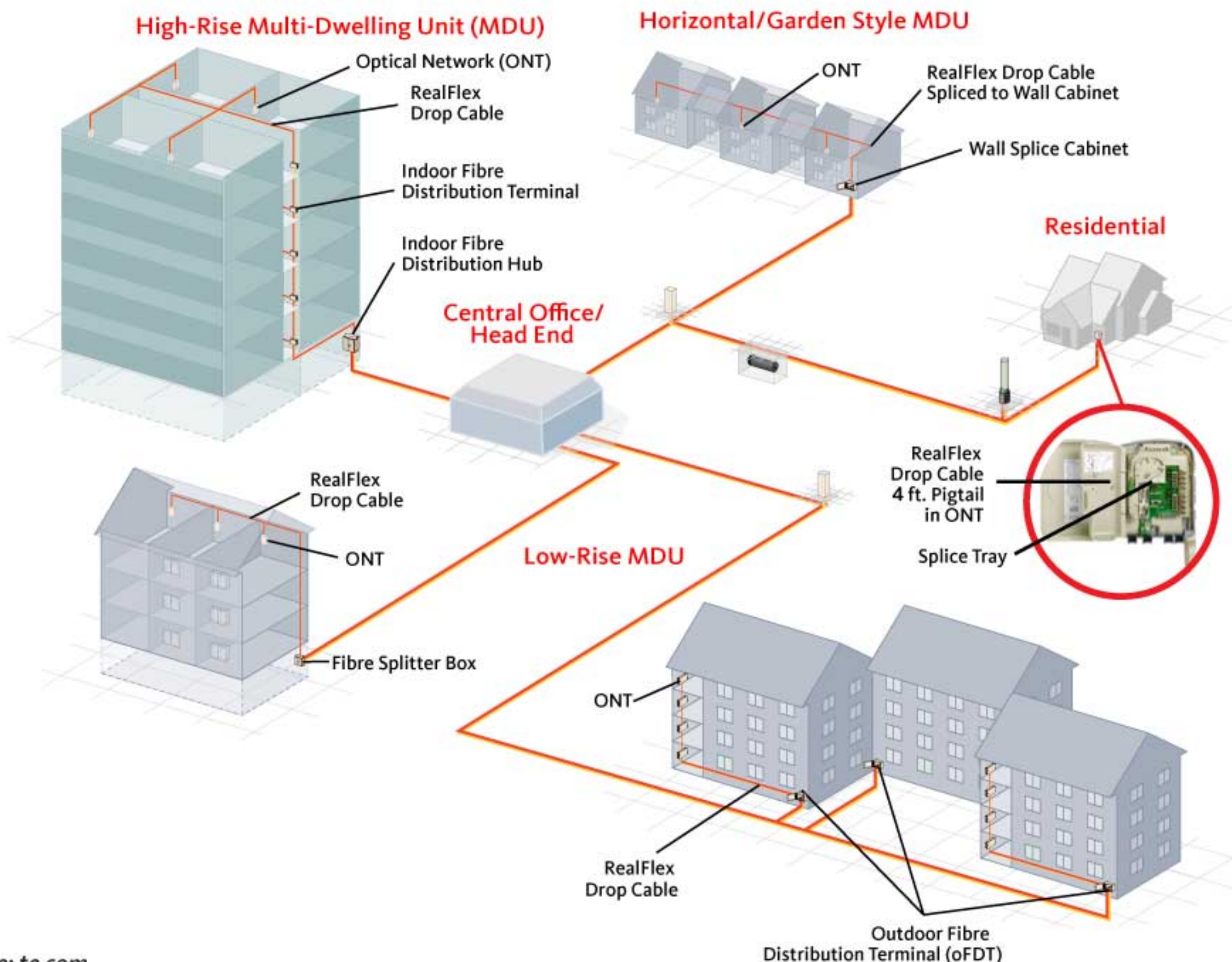
The Right Cable

The goal of any FTTP installation is fast, easy, reliable turn-up and delivery of service. Cabling to and within the premises is among the many factors impacting an effective, efficient installation. Planning for cable installation includes assessing easy cable routing and minimising signal loss, obtaining precise measurement for cable runs, maintaining inventory of varying cable lengths, and scheduling crews and insulation times. Thus, selecting the right drop cables can have a profound impact on the installation, turn-up and delivery of service.

To reduce the time and cost involved, it is important to properly transition the fibre from the hardened GR-20 rated cable (a fibre cable designed for outdoors) to more malleable variants indoors. This can now be easily implemented through the RealFlex drop cable – an all-in-one cable suited for rough outdoor environments while being flexible enough to accommodate tight bends within the premises.

The RealFlex drop cable incorporates a hardened SC connector on one end, allowing installers to quickly mate with a service terminal anywhere, with a water-blocking

Application of RealFlex Cables



Source: te.com

Through RealFlex, any building – from low-rise to high-rise, residential to commercial – can be reliably connected to a fibre grid.

thread preventing water penetration. On the other end is a standard SC connector, which allows it to be connected to an indoor optical network (ONT), splice cabinet or termination box. This eliminates the need for on-site connector termination equipment, resulting in significant labour and equipment cost savings.

Flexible Benefits

Thanks to its reduced bend radius fibre (RBRF), the RealFlex universal drop cable is able to perform with low loss across the spectrum of wavelengths, ensuring all channels are available and maximising bandwidth.

Also, as an average installation site may include as many as seven 90 degree bends, these cables, with a bend radius of as low as 7.5mm, allow for tight turns without compromising performance. In addition, the cable is also backwards compatible with standard models. Owing to the RealFlex cable design, both time and space are saved, as installers no longer

have to stock and store two different cable types, while allowing for efficient splicing or termination at the installation sites.

With the introduction of the RealFlex universal drop cables, FTTP deployments are now faster and less expensive. By taking advantage of the durability and flexibility these cables provide, service providers can reduce or eliminate procedures such as splicing, and reduce the need for hardware such as transition boxes which are used to convert outdoor wire to cost effective building wire, improving the reach of their fibre networks and lowering the overall capital expenditure and operating cost.

Assisting Communities

FTTH Council Americas, Helping to Innovate Solutions

Thanks to the potential and flexibility of Fibre-to-the-home (FTTH) and gigabit communities, US policymakers are keeping an eye on developments in these fields. In a push for more to support such communities, the FTTH Council Americas has recently urged the Federal Communications Commission (FCC) to increase its investment in this sector.



Through a petition it submitted, the FTTH Council Americas called on the FCC to establish a 'Gigabit Communities Race to the Top Program' modelled on the Obama Administration's successful 'Race to the Top' education initiative.

This competitive programme would see the Federal government match grants of up to US\$10 million for fibre projects in rural or small urban communities, and would demonstrate new models for communications investment. It would also hasten the development of ultra-high speed applications, which is crucial to economic growth and social interaction in the country.

The petition also requested the FCC to dedicate a small portion of existing Universal Service Funds to improve broadband by rewarding communities which address multiple community connectivity issues holistically. This would ensure the most value by planning and deploying fibre services more efficiently and cost-effectively. Through the 'E-Rate Program' – a Federal plan that helps with phone and internet services in the

country's schools, hospitals and libraries and the 'Rural Healthcare Program' for hospitals and clinics, community anchor institutions in the States can obtain funds to support their broadband needs using the mechanisms in place.

Earlier in June, the E-rate Program was modernised to allow proposals for bringing ultra-high speed broadband to schools and libraries in dire





Previous page:
Fibre optics
enables real-time
management
of traffic in
communities,
ensuring smoother
flow even during
peak hours.

Left: Fibre access
allows community
leaders to
communicate
with key people
and other leaders,
speeding up social
and economic
growth thanks to
faster and more
efficient networks.

need of bandwidth. The 'Gigabit Communities Race to the Top' is the logical advancement, as it would empower communities outside major markets to bring ultra-high speeds to vital community institutions and their surrounding areas.

The proposal has moved communities, non-profit organisations and educational groups into action, with many submitting their comments to the FCC in support of the petition.

The FTTH Council Americas believes that communities with unlimited bandwidth to their anchor institutions will also discover the value of unlimited bandwidth for residents and businesses, increasing

the probability that companies will extend the fibre network beyond schools, hospitals and libraries. Thus, the proposal of the 'Race to the Top' Program' is not only vital in helping rural and small urban communities have ultra-fast connectivity, but through the improvement of educational opportunities, expansion of community infrastructure and driving local entrepreneurs, also assists the economic development of the country.

Gimme Fiber Day

Commemorating and Advocating Fibre Network Growth

On the 4th of November, the five FTTH Councils around the world celebrated the first ever 'Gimme Fiber Day', a date chosen because it coincides with the 80th birthday of Prof Charles Kao, widely regarded as the 'Father of Fibre Optics Communications'. Prof Kao also received the Nobel Prize in Physics in 2009 for "groundbreaking achievements concerning the transmission of light in fibres for optical communication."



The FTTH Council Americas held the event in Ridgeland, Mississippi, where it was co-hosted by internet service provider C Spire. The company received this honour thanks to its 'Get Fiber First' initiative, which encouraged communities all around Mississippi to compete for the installation of gigabit-ready fibre to the home installations.

The occasion showcased how fibre-to-the-home has positively contributed to countless communities around the world. In addition, it also underlined the steps that Federal, state and local governments can take to advance the adoption and deployment of fibre optics.

Heather Burnett Gold, President of the FTTH Council Americas is looking forward to seeing the positive impact of fibre in Mississippi.

Speaking at the celebration, Heather Burnett Gold – President of FTTH Council Americas – said, “We are pleased to co-host the inaugural Gimme Fiber Day with the state of Mississippi and C Spire. Increasingly, communities and companies from every part of the country are recognising the power that FTTH brings.” Gold also added, “We are happy to celebrate in Mississippi, a state that has not traditionally led the digital charge, but where communities and companies recognise that they must take control of their own broadband destinies.”

With more than 4,000 miles of fibre cable already laid and an additional 1,500 miles scheduled for installation over the coming year, C Spire is set to leverage on the existing infrastructure and comprehensively transform the way education, healthcare, civic life and government services operate in the state.

The fibre-to-the-home service being offered by C Spire promises to equip internet users with speeds of up to 1000 Mbps, which is 100 times faster than what is currently available, and will provide local businesses with the edge they need to remain competitive in the 21st century.



C Spire President and CEO Hu Meena explained the implications of 100 times faster internet speed on the public and private sectors during the Gimme Fiber Day event.



“Mississippi stands at the precipice of a tremendous opportunity to literally transform the way its residents live, work and play through broad deployment of our ultra-high speed fibre-to-the-home Internet access. We are looking forward to bringing 100 times more speed and possibilities to the communities in the State.”

Gregg Logan
Senior Vice President of C Spire Fiber

Facilitating The Inevitable

By Gilberto A Guitarte, Chairman FTTH Council Americas LATAM Chapter



LATAM is the contraction of two words, 'Latin' and 'America', and refers to the region in our Great American continent which starts in Mexico in North America and goes all the way to the tip of South America, which is shared by Argentina and Chile. When we first decided to create the FTTH LATAM Chapter back in April 2009, the first step towards FTTH was still a dream. It was achieved by two Chilean operators – Telefonica Movistar de Chile and Grupo GTD Manquehue.



From then on the wave swept across the region as FTTH was taken up by Telefonica do Brasil, then Telmex in Mexico, followed ANTEL in Uruguay, COTAS and COMTECO in Bolivia and also dozens of small cooperatives in Argentina that were not tied to the burden of legacy copper networks.

By end 2012 we had eight countries actively deploying FTTH, and this will increase to 13 by the close of 2013 with the addition of Costa Rica, Venezuela, Colombia, and Ecuador, as well as those parts in the Caribbean which are serviced by the communications company LIME.

What matters are not financial considerations like Return of Investment (ROI) or Payback Period or Net Present Value (NPV) or Internal Rate of Return (IRR). The important factor is that creative organisations adopt disruptive technologies like FTTH in order to strive to be ahead in the game, as opposed to mere hybrid fibre-coaxial (HFC) and/or FTTN (Fibre to the Node).

Of course, one factor which has convinced many to take up FTTH is that it is future-proof. Decision-makers need to understand that

there is no other way, and that sooner or later, whether it is this year or the next, FTTH is the only tool that is fit to help keep and grow Average Revenue Per User (ARPU).

Andre Kriger – Director of FTTH Deployment in Telefonica Vivo Brasil – summed it best in September this year during our FTTH Council Americas Annual Conference in Tampa, Florida when he said, "In our company, we understand that anything we deploy which is not FTTH, such as Vectoring, G.FAST and so on, is only a temporary fix, and FTTH is inevitable."

Kriger explains that FTTH is usually driven by business. There are some exceptions though where the government provides the push factor as it envisions having the whole country connected so that the population can

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FTTH COMMUNITIES:

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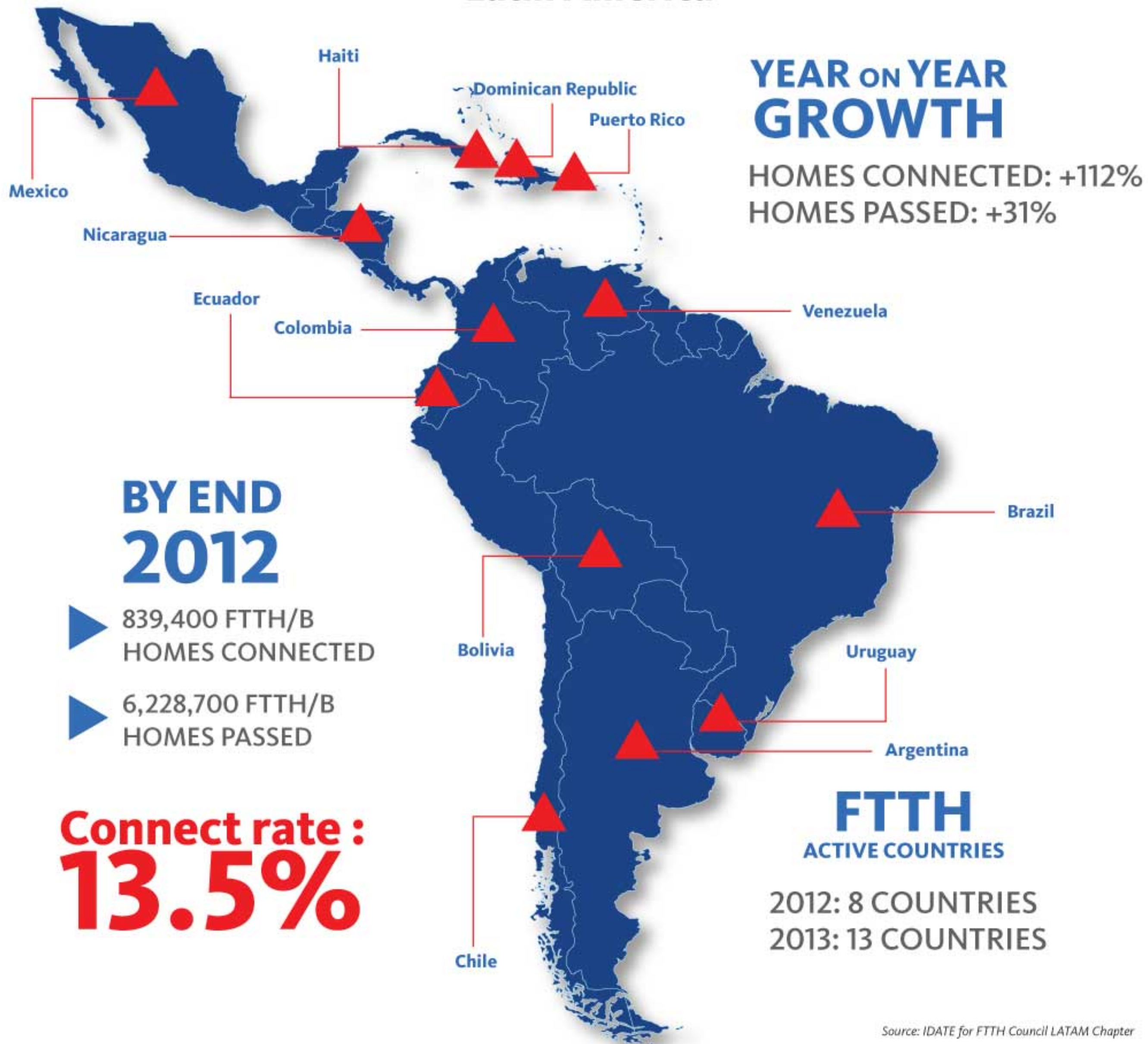
FTTH 2014
CONFERENCE & EXPO

June 23–25, 2014

Greater Fort Lauderdale Convention Center
Fort Lauderdale, Florida, USA

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FTTH/B Homes Passed and Connected in Latin America



enjoy the benefits to education, health, economic growth and defence. Uruguay is an example of such a situation.

There is much talk about Generation C (which IBM depicts in its article *Digital Darwinism and the Dawn of Generation C*), and how they are 'always on-line'. This is possible because of fibre technologies in the long haul, back haul, metro nets, cell backhaul, corporate nets and of course FTTH.

We, the older generation, also need to be connected in order to talk WITH this new generation. Otherwise we will be left out of their world

which is the future. Everything is dependent on fibre. Even the Cloud will start raining and leaking heavily if it is not 'fiberised'. Because no matter how much processing power and storage space it has, the Cloud needs the fibre pipeline to be able to move information content bi-directionally from anywhere to anywhere with speed.

So friends of the Broadband World, history is happening in LATAM, and we are writing it.



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Boosting Fibre Growth

The FTTH Council Americas Annual Conference and Exhibition 2013, Tampa, Florida, USA

Held from the 30th of September to the 2nd of October, the FTTH Council Americas Annual Conference attracted 1,300 attendees and 105 exhibitors, comprising FTTH providers, equipment suppliers and application builders as well as members of communities with next generation fibre networks. Themed “Empowering Innovation”, the event showcased the entire FTTH Ecosystem in North America to attendees gathered at the Tampa Bay Convention Center.



Respected leaders in the FTTH industry were among the speakers at the three-day conference. They included Jeff Joseph – Senior Vice President of the Consumer Electronics Association, Joe Reardon – the former Mayor of Kansas City, Kansas who brought Google Fibre to the community, David Young – Vice President for Public Policy at Verizon, Blair Levin – Executive director of Gig.U, Robert Shaddock – Chief Technology Officer and Executive Vice President of TE Connectivity, and David Russell – Solutions Marketing Director at Calix.

Following in the footsteps of the highly acclaimed conference held in Dallas, Texas last year, various workshops and industry panel discussions covering technology, deployment, business operations and marketing of all-fibre broadband networks were held to provide technical knowledge to conference attendees. These events allowed them to learn new strategies for accelerating the growth of all-fibre networks and also discover key developments in North America, Latin America and the rest of the world.

The vibrant exhibition floor also featured the interactive World of Applications – co-sponsored by US Ignite, a non-profit organisation – in addition to the exhibits from the FTTH value chain. Some of the new applications that use next generation networks as a platform were demonstrated. Highlights included a multimedia platform for telemedicine and home healthcare applications from A-Vu Media, a next generation home security platform by GVTC and Honeywell, a Real-

time Emergency Response System by McGill University and a Disaster Mitigation System from SimCenter.





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Among the highlights of the Conference was the World of Applications exhibition. It was co-sponsored by US Ignite – a non-profit organisation which fosters the creation of next-generation internet applications.

2. Joe Reardon (far left) – Former Mayor of Kansas City, Kansas and Aaron Deacon (second from left) – Managing Director of Kansas City Digital Drive received the FTTH Council Americas Star Award on behalf of Kansas City, Kansas and Kansas City, Missouri respectively, from Heather Burnett Gold (second from right) – President of the FTTH Council Americas and Kevin Bourg – Chairman of the FTTH Council Americas.



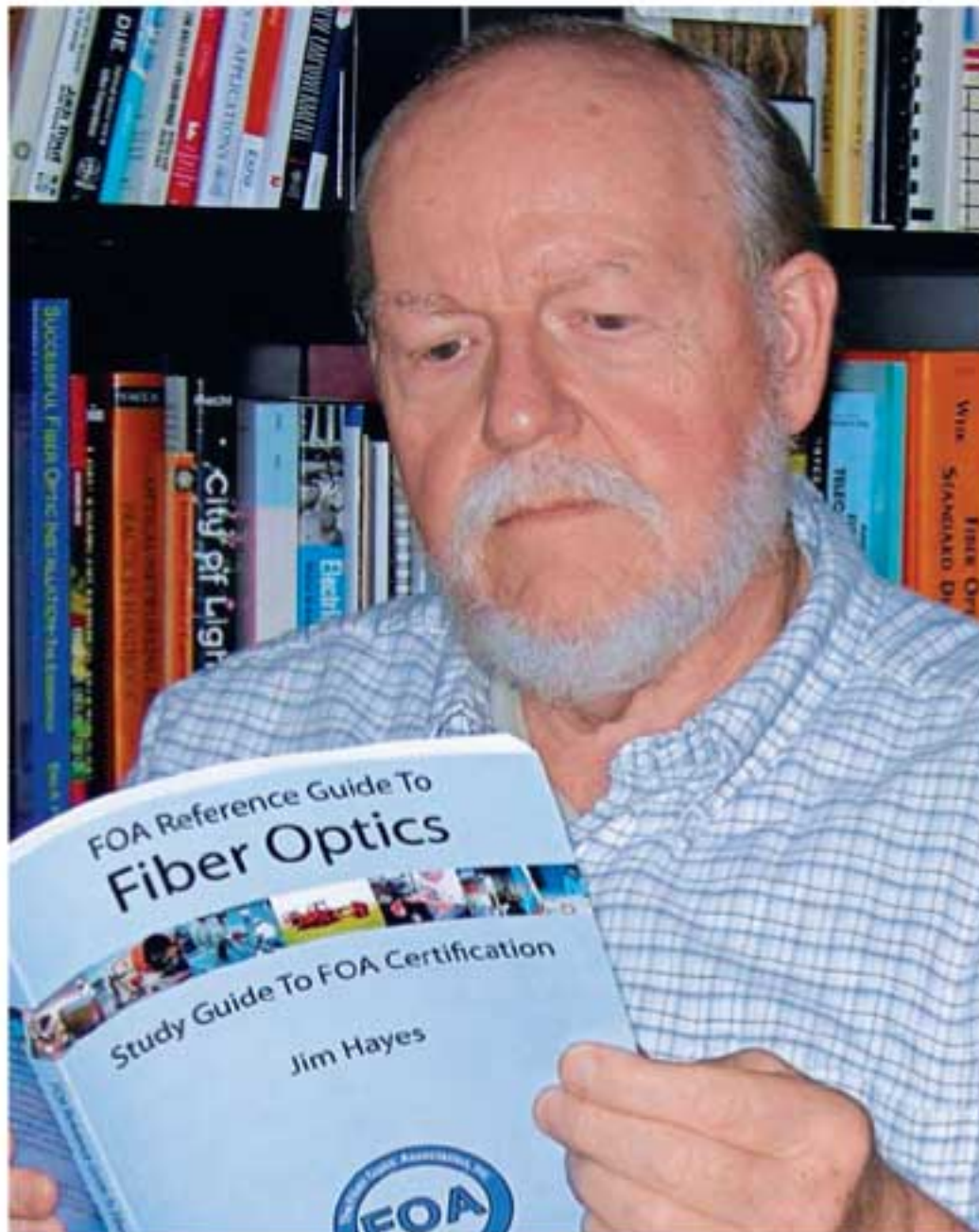
3. Attendees at the conference took the opportunity to visit the exhibition and inspect the latest technology and discover strategies for deploying potential FTTH.

Speaking at the event, Bill Wallace – Executive Director of US Ignite said, “We were thrilled to be given the opportunity to co-sponsor the World of Applications at the 2013 FTTH Conference & Expo,” adding “The Application showcase highlights how high bandwidth from advanced networks will transform how we receive everything from healthcare to public safety services to education and public library services.”

Responding to changes in the market and feedback from the expanding membership, this year’s conference paid special attention to service providers and communities. This was achieved through several specialised educational tracks, where experts imparted knowledge to participants to help them grow as leaders in their field.

The successful event concluded with several leaders from FTTH Councils around the world sharing the state of the industry and discussing challenges and opportunities for future deployment of FTTH. The next FTTH Annual Conference and exhibition by FTTH Council Americas will be held in Fort Lauderdale, Florida in June 2014.

Enhancing Fibre Competency



Jim Hayes – President of the FOA

It is often said that fibre optics connectivity is the solution of tomorrow. This is partly true. It is definitely the only future-proof technology that allows for ultra-high-speed broadband connectivity. However, to call it a “future technology” runs the risk of ignoring just how important it is to adopt fibre today. Around the world, cities and countries are embracing its speed and power. One challenge, however, has been to develop technical competency in this area. To address this, the FTTH Council MENA and FTTH Council Africa has partnered with The Fiber Optic Association (FOA) for the latter to provide training to its members. Jim Hayes – President of the FOA – tells more about this collaboration.

“Those of us promoting FTTH like to focus on its benefits – high bandwidth, opportunities for new services, and customer satisfaction. The service providers look at all that too, but they also have some practical concerns: What will it cost? Who can design the network? Who do I choose for my equipment suppliers? And most importantly, who will be installing it?

Who designs and installs an FTTH network is important because it has a major effect on cost. Good designs are efficient designs. Installation labour can be as much as half of the total system cost. The quality of the installation will affect cost also. High quality installations have lower costs because the work will be done right the first time,

needing little rework. And a high quality installation will have lower operating costs because it will be more reliable.

What makes a ‘high quality installation?’ People. Well-trained, experienced people.

Developing The Programme

The Fiber Optic Association, Inc. was founded in 1995 by a dozen instructors with many years’ experience teaching the technicians who were building fibre optic networks. We comprised fibre component manufacturers, professional training organisations, military and government trainers and two college professors. Between us, we knew the technology, the components, the applications, the installation processes, and, thanks to the professors, how to create and offer training properly.

FOA did no training itself, except for occasional instructor training classes. We set standards for the schools and their instructors teaching fibre optic courses, and created reference materials and

curriculum. Then we used the experience of our professors to create standards for testing and certifying their students. Thus was born the CFOT®, which is the FOA “Certified Fiber Optic Technician” training programme.

FOA’s FTTH training programme was developed with Verizon when they began their FiOS FTTH (a bundled fibre-optics connected internet access, telephone and television package) programme. They quickly realised that they needed many FTTH technicians to complete the work in a reasonable time and those techs required more training beyond the basics of fibre optics. Verizon contacted the FOA in 2005

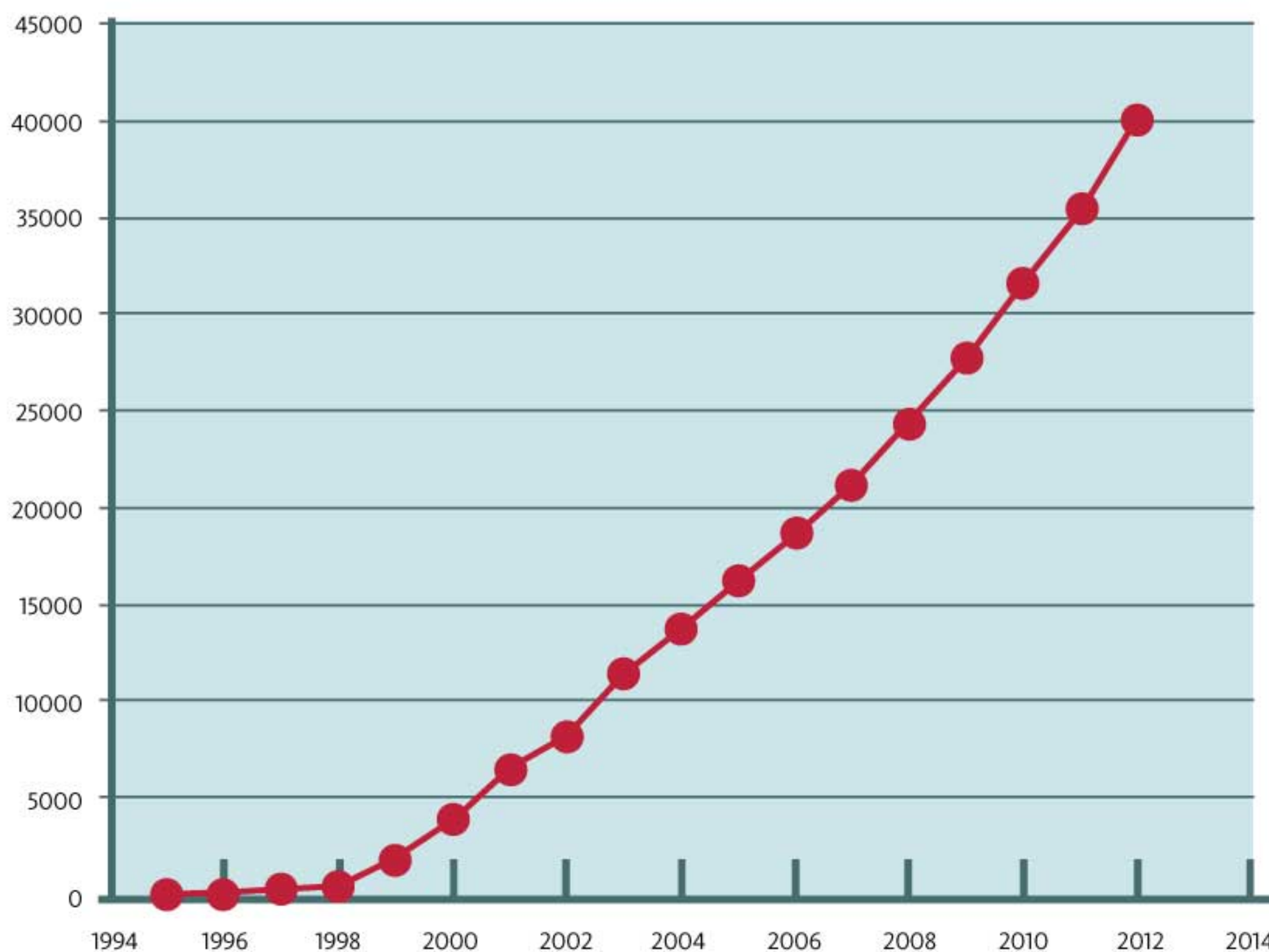
and gave us access to their technical and field people to develop the FOA specialist training and certification in FTTH – Certified Fiber Optic Specialist/Home (CFOS/H). When that was ready, we worked with their recruiters to help find and train the personnel required.

Working With FTTH Councils

FOA was ready to help the FTTH councils in Africa and the Middle East develop their FTTH training programmes. Not only did we have the training curriculum and certifications already, but we could call on two of our FOA Master Instructors to develop and run the programmes.

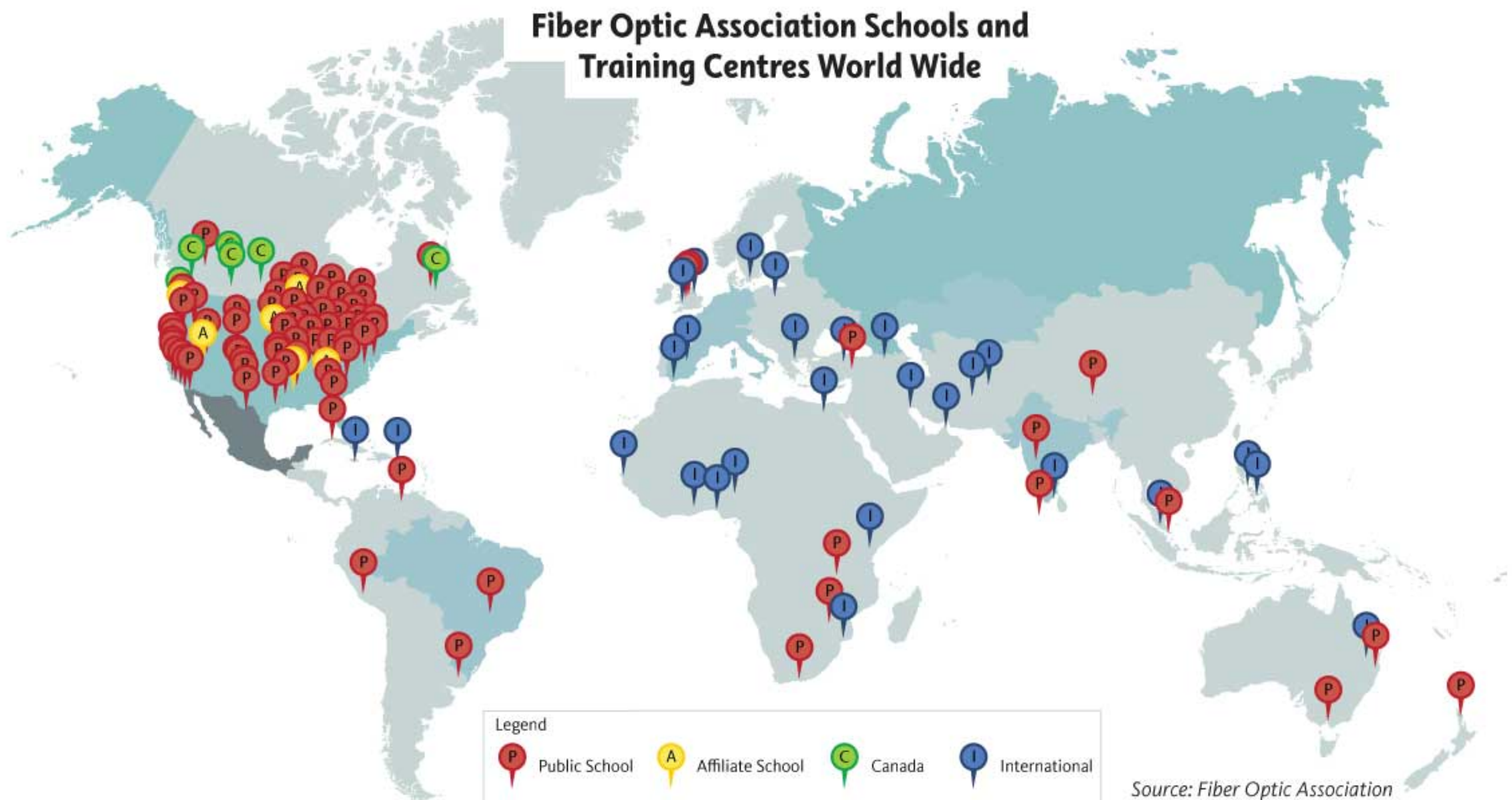
One cannot underestimate the need for local input when creating such a comprehensive training programme. Joe Botha, FOA Master Instructor from Durban, South Africa, has twenty years experience in fibre optics in South Africa including almost a decade teaching FOA programmes.

FOA Certifications Worldwide



Having provided training to FTTH service providers since 1995, the Fiber Optic Association (FOA) has seen a steady rise in the number of technicians certified by its programmes, a sign of the confidence providers have in them.

Source: Fiber Optic Association



He used the FOA curriculum and modified it to cover the local markets as well as the standards and codes of South Africa and the inputs of members of the FTTH Council South Africa. Joe's programme started with the basic FOA CFOT, and added specialist training in FTTH as well as the FOA fibre optic network design course to provide a comprehensive training and certification programme for those who would design and build South Africa networks. In addition, Joe and the FTTH Council South Africa also recognised something new – the need to train unskilled civil workers – and created a “Learnership” programme to address this need.

When FTTH Council MENA approached FOA with a similar request, we were able to use what we had learned working with Joe Botha and the FTTH Council South Africa to create a similar programme. We brought in Ian Gordon Fudge, the FOA Master Instructor from Denmark, who has been training FTTH techs in Europe, the Middle East and North Africa for many years, to be the instructor.

In addition, Ian had created a portable FTTH lab that could be shipped into any city for a course, and this is ideal for the FTTH Council MENA which plans to offer training around the region. He has conducted three courses in the MENA region: Lebanon in July 2012, Jordan in November 2012, Saudi Arabia in March 2013 and more to come. In addition, FTTH Council MENA linked recently with Etisalat Academy, the FOA certified school in UAE, with whom they delivered a CFOS training programme back in June 2013.

The success of these two programmes illustrates the FOA philosophy. Good technical training requires a proper curriculum adapted to the needs of the students and the local markets, sufficient classroom time for teaching and discussion, well-organised hands-on labs to teach the skills necessary for the techs to be successful in the field and, most importantly, instructors who are both knowledgeable and know how to teach their subjects.

FOA is extremely pleased to have been able to work with FTTH Council Africa, FTTH Council MENA, Joe, Ian, and the FOA Certified Schools in MENA and Africa in making these programmes a success.”



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Global Power with Regional Strength

The FTTH Council Global Alliance (FCGA) is the platform for cooperation of the five global FTTH Councils. All FTTH Councils share a common goal: the acceleration of fiber to the home adoption. They all act as powerful and independent organizations in their specific market. This regional focus gives the FTTH Councils a special strength to adapt their activities to the particular market situation in their area.

The FTTH Council Global Alliance ensures that those regional efforts are combined with the power of global cooperation. Within the FCGA the FTTH Councils exchange studies, information and latest market developments. Joint projects – like this magazine – allow global activities and intercontinental networking.

Join the Conferences of the FTTH Councils around the Globe:

- FTTH LATAM Conference:
13-15 May 2013, Sao Paulo, Brazil
- FTTH Council APAC Conference:
19-22 May 2013, Auckland, New Zealand
- FTTH Council Americas Conference:
30 September – 2 October 2013, Tampa, Florida
- FTTH Council Africa Conference:
29-30 October 2013, Maropeng, Cradle of Humankind, South Africa
- FTTH Council MENA Conference:
27-28 November 2013, Morocco
- FTTH Council Europe Conference:
18-20 February 2014, Stockholm, Sweden