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FTTH Council MENA - Panorama

Middle East and North Africa FTTH Broadband status

Market at September 2019

FTTH Council MENA Conference – October 22nd, 2019 – Cairo, Egypt

Agenda

1. Study Background
2. General overview and main trends
3. MENA : FTTH/B Status and leading countries
4. MENA : FTTH/B Technical trends
5. MENA : FTTH/B Ranking at September 2019
6. Key conclusions

01 | Study Background

Methodology

- Mission on behalf of the **FTTH Council MENA**
- Provide a complete summary of the FTTH/B status in **17 countries** in Middle East and North Africa at **Sept. 2019**

ACTIONS

Scope

- Analysis of 17 countries*
- Data per player for FTTH/B and other fibre-based architectures
- Distinction between architecture: FTTH/B vs FTTx (FTTN/C+VDSL, FTTLA+Docsis 3.x)
- Key parameters study: technical, financial, business models, figures

Bottom-up methodology

- Desk research
- **Direct contacts** with leading players and IDATE partners within countries
- Information exchange with the FTTH Council MENA members

Results

- Both quantitative and qualitative data
- Market status in the country
- Strategic approach of involved players

(*) Algeria, Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Sudan, Tunisia, United Arab Emirates

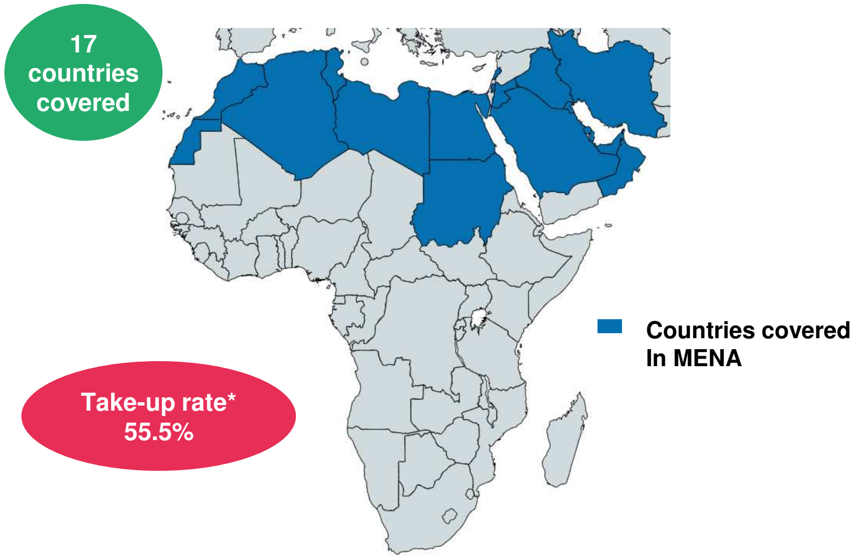
02 | General overview and main trends

FTTH/B figures in MENA as at September 2019

As at September 2019 in MENA(*):

- **3.46 million FTTH/B subscribers → + 18% YoY growth**
- **More than 6 million FTTH/B Homes Passed → + 19% YoY growth**

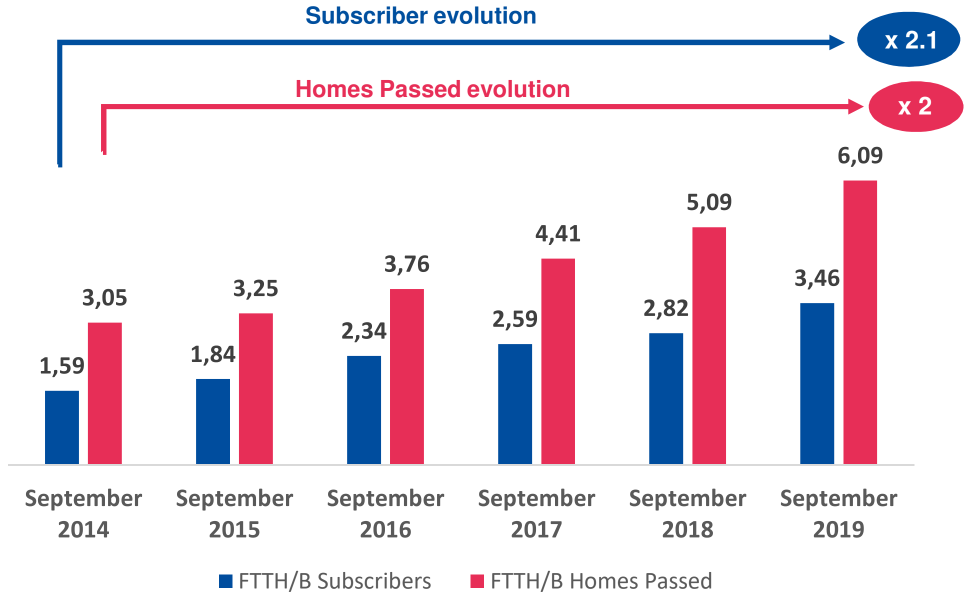
FTTH Council MENA scope at September 2019



(*) MENA-17 = Algeria, Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Sudan, Tunisia, United Arab Emirates

**Take-up rate = FTTHB Subs / FTTHB Homes Passed*

FTTH/B Market evolution in terms of Subscribers and Homes Passed (MENA-17) in millions

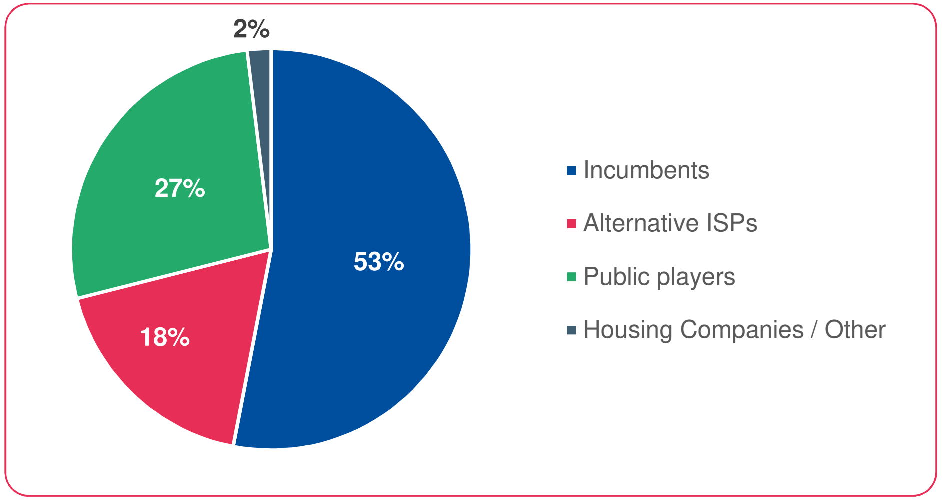


Source: IDATE for FTTH Council MENA

Incumbents play a significant role in enhancing FTTH/B networks

- Analysis of around **56 FTTH/B projects** in Middle East and North Africa at September 2019
- Around **53% of total Homes** in the region have been passed via **incumbents** initiatives (representing 4.6 million homes), and approx. 27% of Homes deployed by public initiatives.
- In terms of the number of FTTH/B initiatives, alternative ISPs (account for 29 initiatives, i.e. 52%) are leading the fibre transformation (although their projects are not as big as those initiatives from incumbents or public players).

Breakdown of FTTH/B Homes Passed deployed by type of player (%)
As at September 2019



Source: IDATE for FTTH Council MENA

03 | MENA : FTTH/B Status and leading countries

FTTH in MENA – Countries Position

In September 2019

Mature & Dynamic markets

Qatar
UAE
Oman
Bahrain
Saudi Arabia
Kuwait

High Potential markets

Iran
Libya

Markets with significant announcements and/or progresses

Lebanon
Iraq
Morocco
Algeria
Tunisia
Jordan
Egypt

Steady markets with few evolution

Palestine
Sudan

(*) Excluding countries with non available data

Source: IDATE for FTTH Council MENA

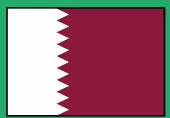
Trends in MENA : Fibre transformation through the deployment of full FTTH solutions or a progressive migration from copper towards fibre

UNITED ARAB EMIRATES

- Few years ago, **Etisalat** and **Du** engaged in the rapid deployment of FTTH networks across the country.
- As at September 2019, the **whole country** is almost entirely covered with FTTH networks for both residential and corporate users.

SAUDI ARABIA

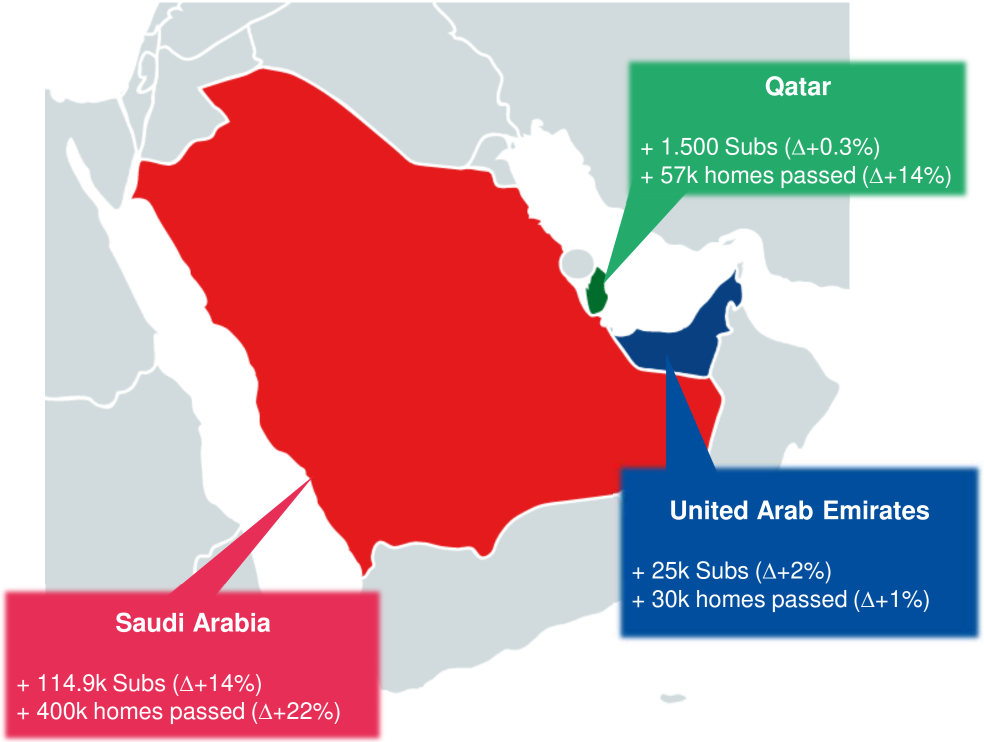
- A country where a **National Broadband Plan** is currently in execution in order to reach at least 3.5 million homes with FTTH by 2020.
- Several telecom players are involved in the deployment of the National Broadband Plan and also one electricity company.



QATAR

- Qatar’s QNBN plays a key role in promoting FTTH deployments throughout the country
- ISPs in Qatar are currently almost covering the whole country with Fiber-to-the-Home broadband networks

FTTH/B additional Subscribers and Homes Passed in United Arab Emirates, Saudi Arabia and Qatar from September 2018 to September 2019



FTTH/B Subscribers in MENA: A region that is represented by 3.46 million FTTH subscribers, led by UAE and followed by Saudi Arabia

FTTH/B Subscribers in the 4 main MENA Fibre markets, September 2019

919k FTTH/B subscribers

Saudi Arabia

FTTH / B

100%

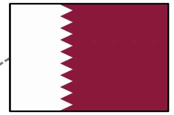
103k FTTH/B subscribers

Kuwait

FTTH / B

100%

394k FTTH/B subscribers



Qatar

FTTH / B

100%

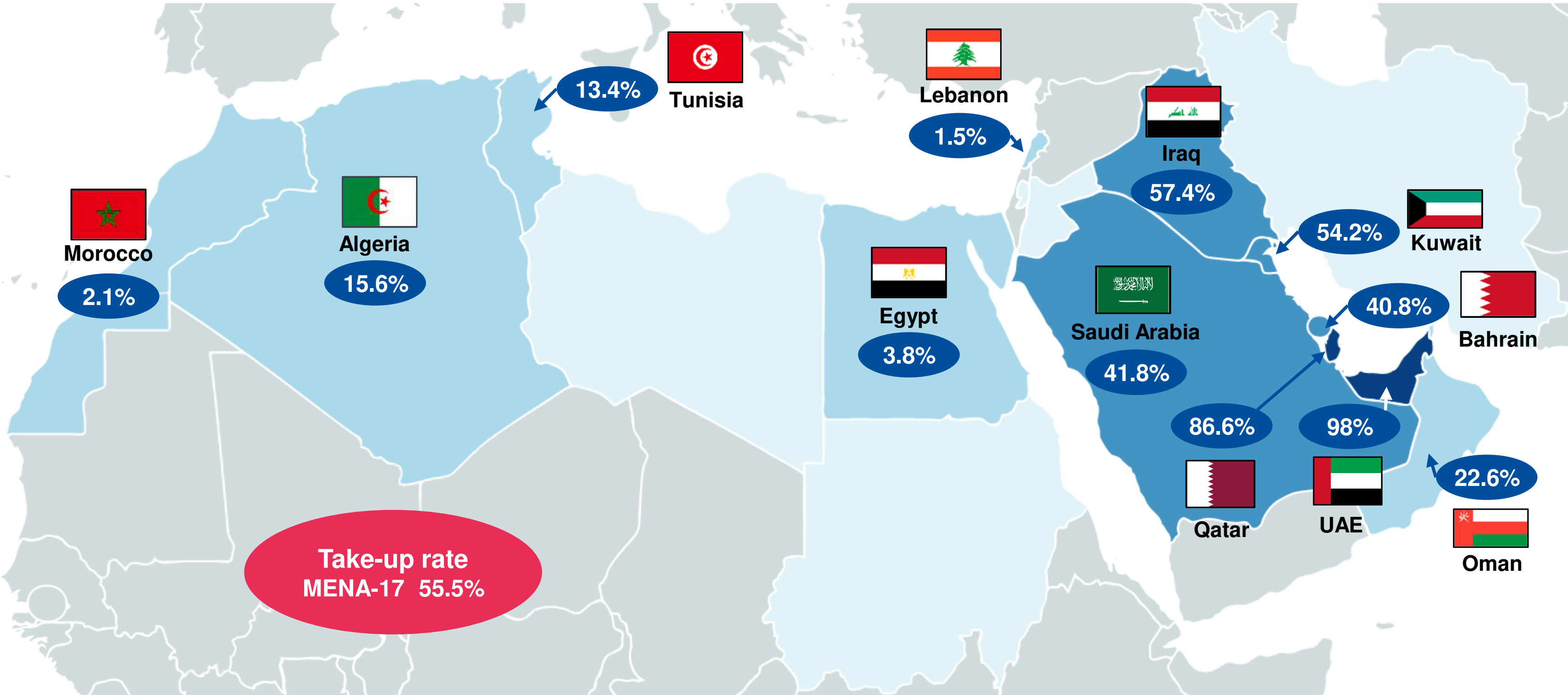
1.675 million FTTH/B subscribers

UAE

FTTH / B

100%

FTTH/B Take-up rate*: UAE and Qatar as leaders in the region and also in the world with a very high adoption of fibre services



FTTH/B take-up* as at September 2019

- FTTH/B take-up > 80%
- FTTH/B take-up 40 – 80 %
- FTTH/B take-up < 40 %
- Data not available

Source: IDATE for FTTH Council MENA

*Take-up rate = FTTHB Subs / FTTHB Homes Passed

04 | MENA : FTTH/B Technical trends

Technical evolution of the FTTH/B networks in Middle East and North Africa

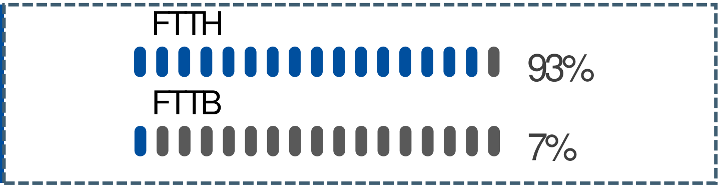
How has been the deployment of FTTH/B networks in these countries?

- Methodology: Interviews
- Quantitative variables
- Different variables defined

Focus on upgrading to FTTH/B technology and architecture: MENA is highly deploying FTTH solutions over PON technology

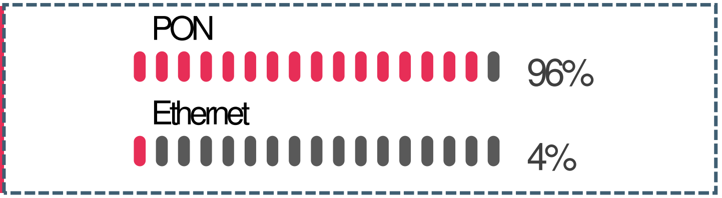
FTTH VS FTTB TECHNOLOGIES

- FTTH is mainly promoted by those countries where there is a high densification of fibre services (UAE, Qatar).
- Many countries in the region has followed the same strategy of the leaders, in order to deploy full FTTH solutions to each premise.



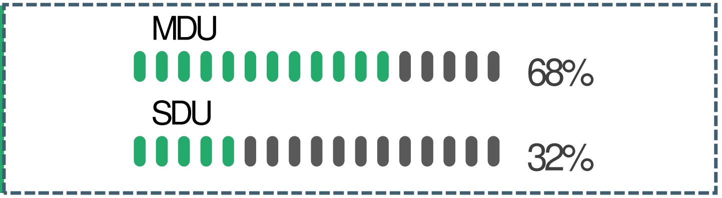
PON VS ETHERNET P2P

- Fibre deployment in MENA has been recently implemented and investment efforts are focused on the scalability of the network.
- XGPON is being highly deployed in the region, making P2P Ethernet solutions not so common among MENA countries.



SDU VS MDU

- While the FTTH/B solutions have been mainly deployed in green field areas with new buildings. Now the main focus in the region is also to reach single households.



Source: IDATE for FTTH Council MENA

05 | MENA : FTTH/B Ranking at September 2019

Indicators affecting the FTTH adoption

Positive criteria

1	Demand for data and bandwidth continues to grow, thus operators have to adapt their networks to robust technologies able to provide those speeds. FTTH allows this.
2	Currently many governments are working closely with incumbents in the region in order to accelerate fibre deployments and copper migration.
3	Players have found a new revenue model based on the delivery of high definition services, low latency and add on services that increase average ARPU
4	Mutualized networks as well as sharing agreements tend to push FTTH development

Indicators affecting the FTTH adoption

Negative impacts

1		A region with strong presence of wireless connections and copper based networks, that could satisfy current data demands for a huge population.
2		New variants or mixed-build architectures, FTTC or DOCSIS 3.1, could delay FTTH investments by operators. These options tends to be economically more feasible in the short term.
3	5G	Future 5G technology used in high spectrum bands (26 GHz) could directly challenge FTTH in the fixed residential market.
4		Public funding initiatives may not be enough to effectively encourage FTTH growth, since a lack of coordination between government, incumbents and alternative ISPs.

06 | Key Conclusions

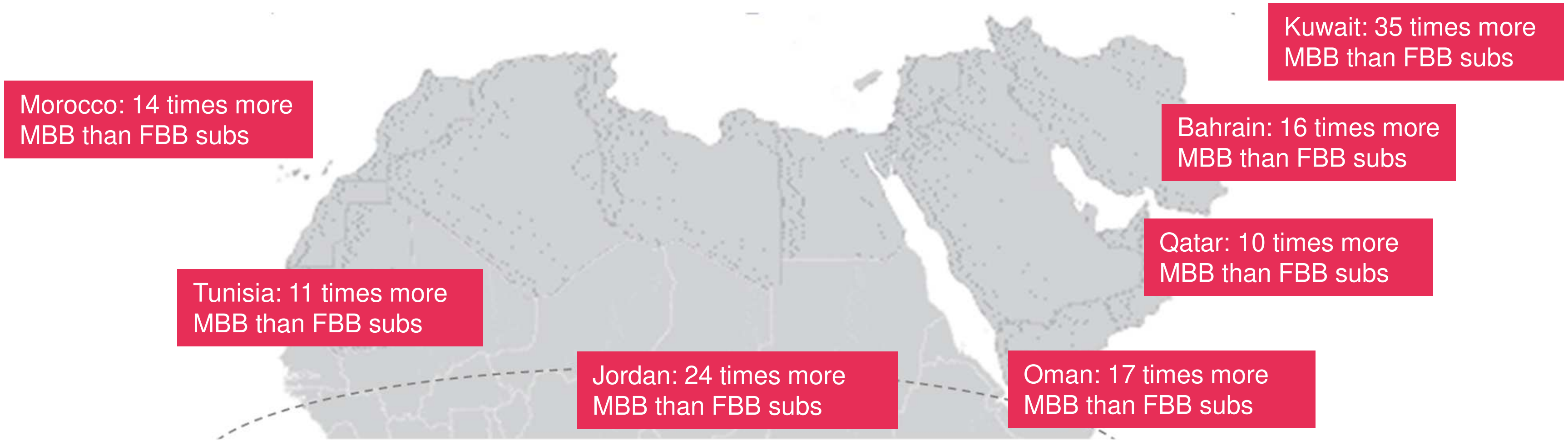
Key conclusions

1 **GOVERNMENT INVOLVEMENT**	▪ New strategic fibre deployment plans are now sponsored in the region by local governments ▪ Governments are working closely with incumbents and utilities companies to extend fibre networks such as in Egypt. ▪ Governments are allocating public funds in order to support fibre deployment to deliver FTTH services but also to back up 5G networks.
2 **FTTH GROWTH AND COPPER TRANSITION**	▪ Countries like **Saudi Arabia, Lebanon, Algeria, Kuwait and Jordan** have made consistent progress in their FTTH evolution during the last year. ▪ Now some countries have delimited a road map to migrate all their existing copper based networks towards fibre. We expect more countries will join this list in the coming 2 years.
3 **EMERGING TECH**	▪ **5G implications:** 5G will be a key factor for the promotion of fibre deployments and therefore will boost investments from public and private players ▪ **Wireless Solutions:** One of the big **challenges** operators have to deploy fibre is the presence of wireless technologies that are present in each MENA Country offering services with an affordable price and with a bandwidth that is accepted by many users.

Mobile BB as a competitor for FTTH in the region ?

Mobile broadband is very present in the region… and this is the main challenger for FTTH/B services

- Mobile Broadband subscriptions overpass fixed Broadband subscriptions in several countries (Egypt, Morocco, Jordan,…), and this trend might not change even with the rollout of new networks (The deployment of 4G and 5G technologies could compete with Fixed BB services)



However the evolution and launching of 5G are promoting FTTH deployments in the region

- The need for interconnecting base station with fiber will increase (5G)… and also a bigger demand of higher bandwidth and low latency that fiber only can manage

FTTx & Gigabit Society – IDATE DigiWorld Research

Our key strengths

World reference with FTTH Council chapters for data and rankings

70+ Countries covered

Up to **10** players per country

Dataset includes subscribers, home passed, breakdown per player and per technology (FTTH, FTTN, Docsis), since 2014 and forecasts up to 2023

Hands on assistance for FTTx deployment

Public Initiative Networks

Competitive Analysis

Business Modelling

National Broadband Plans

FTTx & Gigabit Society – IDATE DigiWorld Research

Reports & Datasets

Type of deliverable	Title	Publication date
Upcoming publications - 1st half 2019 (additional titles for the 2nd half to be announced)		
Report	NGA and PPP plans in Europe*	Q3 2019
Report	Copper network switch-off	Q4 2019
Dataset	World FTTx Markets - 2H2019	Q4 2019
Available publications		
Dataset	World FTTx Markets - 1H2019	Q3 2019
Report	Internet access in South Africa	Q3 2019
Report	The potential of 5G Fixed Wireless Access*	Q3 2019
Dataset	FTTx markets in Middle East & Africa	Q3 2019
Report	Vertical separation	Q3 2019
Dataset	FTTx markets in Europe	Q3 2019
Dataset	FTTx markets in the Americas	Q3 2019
Dataset+Report	From network virtualisation to 5G slicing	Q2 2019
Dataset	FTTx markets in Asia-Pacific	Q2 2019
Dataset+Report	Telco & OTT Investment challenges - CapEx dynamics	Q1 2019

** Disponible également en version française*

Titles and scheduling of upcoming publications are indicative – details for available publications can be accessed online