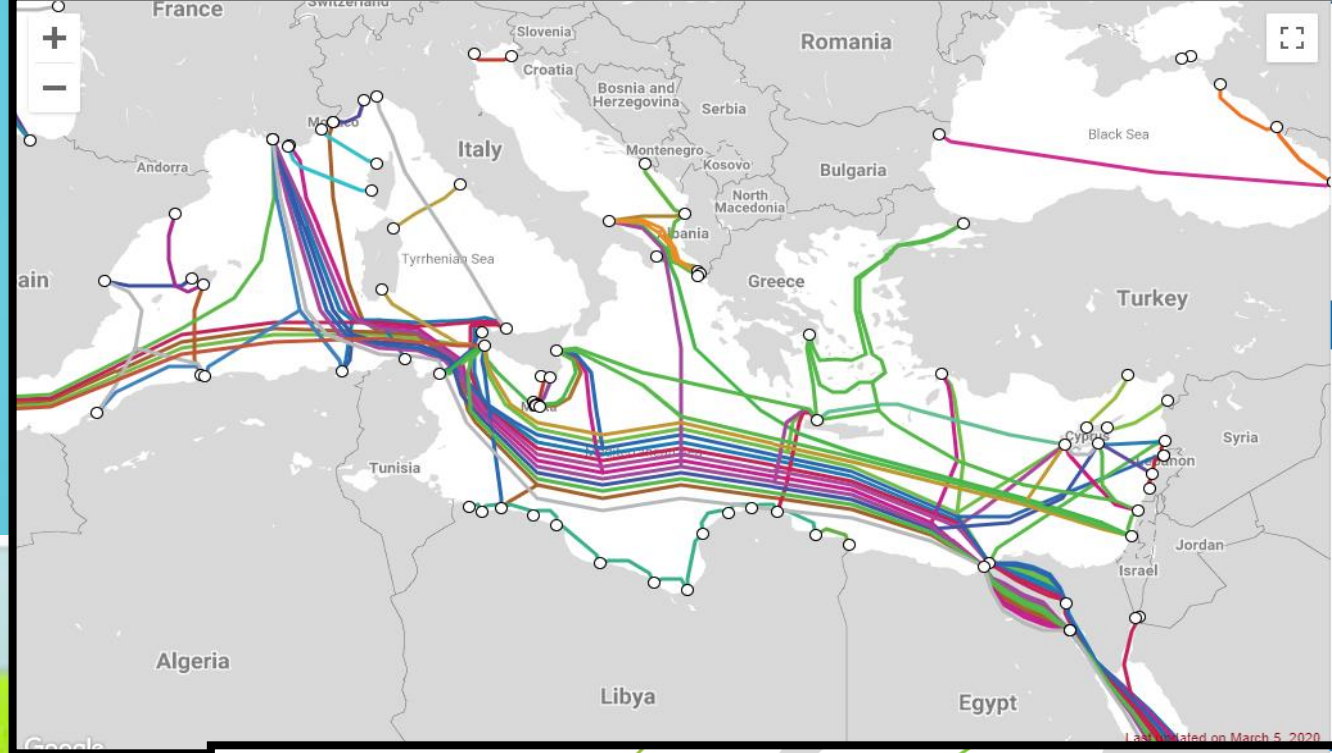
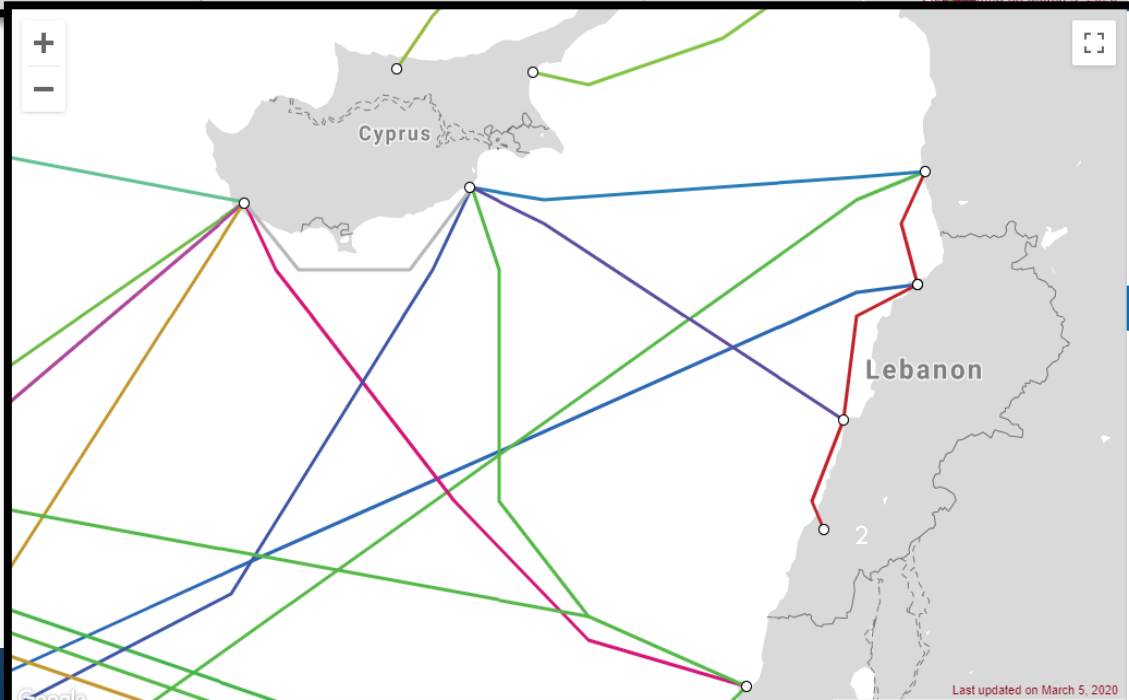
NORTH LEBANON TELECOMMUNICATION

PRESENTED BY: MARYAM ABDEL-KARIM

The I-ME-WE (India-Middle East-Western Europe) submarine communication cable linking Tripoli, Lebanon with other countries





LANDLINES

IN NUMBERS

Landline

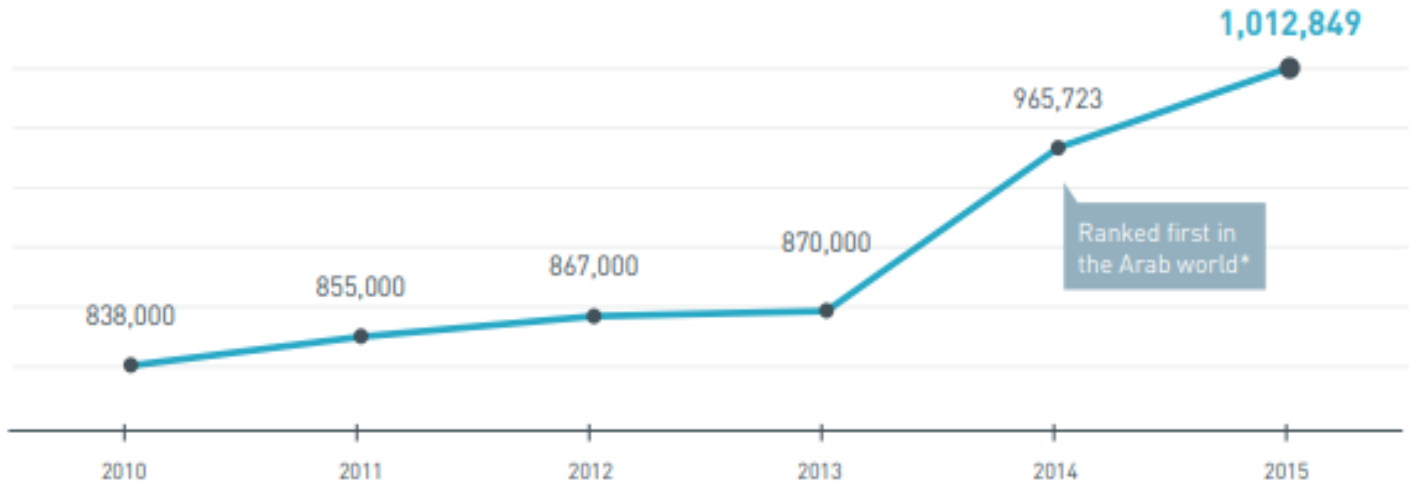
1,012,849
the total number of landline subscribers

142,849
new landline subscribers between 2014-2015, it was 15,000 compared to 2012-2013

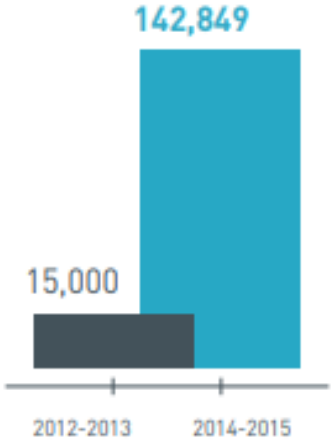
198
new subscribers per day between 2014-2015, compared to 21 in 2012-2013

843%
increase of new landline subscribers

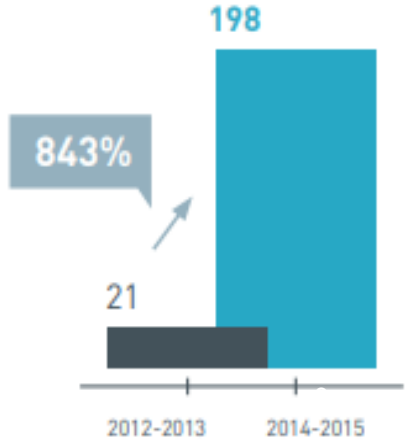
Landline Subscribers



The number of new landline subscribers



The daily average of new subscribers



INTERNET

Internet

1,244,384
the total number of internet subscribers

764,384
new internet subscribers compared to 77,671 between 2012-2013

1061
the average of new internet subscribers per day in 2015, compared to 107 between 2012-2013

93,5%
the coverage ratio of fixed-network the DSL and the VDSL technologies

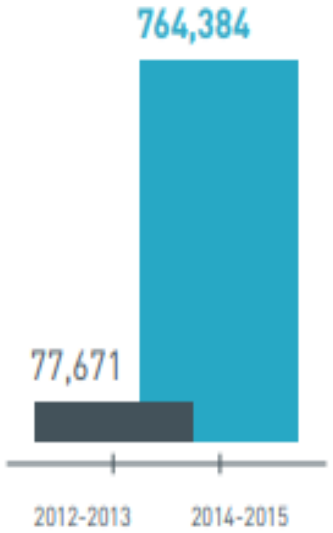
67%
of the internet users are subscribed to 2 and 10 MB/S compared to 13% in 2013

70,000 E1
the volume of international internet capacities shows an increase of 442% compared to 2013

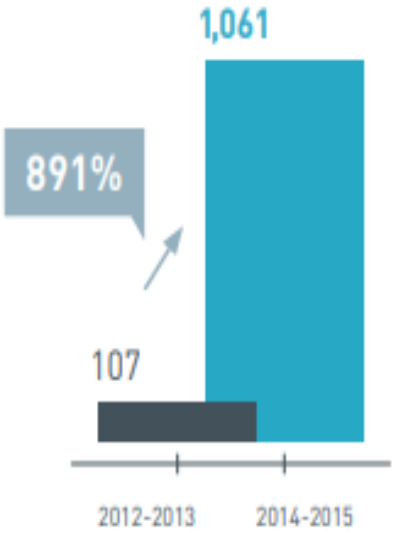
39,200
E1s is the total international internet bandwidth dedicated to private ISPs show an increase of 570% compared to the year 2013

422%
increase in E1 numbers compared to 2013

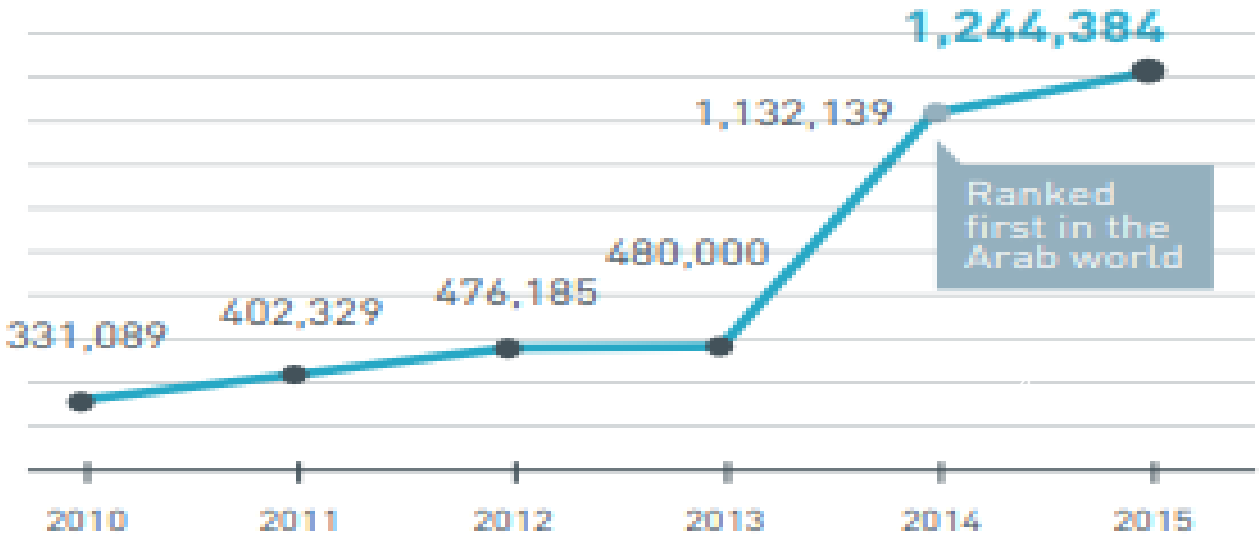
The number of new broadband internet subscribers



The average of new broadband internet subscribers per day



The total number of broadband internet subscribers



DSL

93,5%

of central offices are equipped with DSL-VDSL technologies

74 new central offices were equipped with DSLAM technology in 2014-2015.
The total number of central offices with DSLAM technology reached 244 in 2015, up from 170 in 2013. Thus, 93.5% of central offices in the country became equipped with the DSL-VDSL technologies.

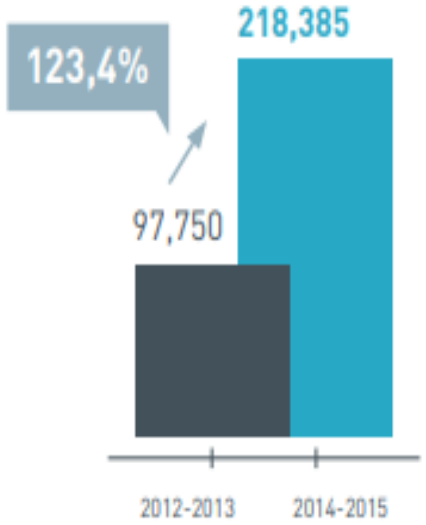
The total number of phone central offices with DSLAM technology

67%

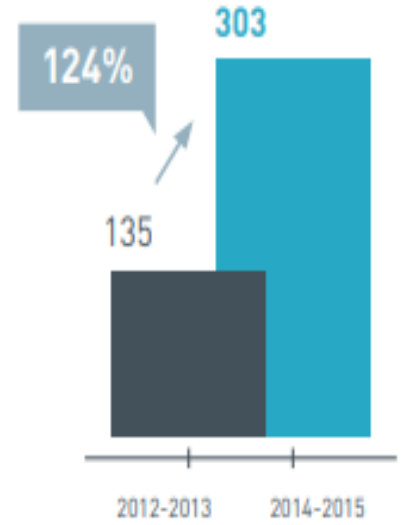
of subscribers with internet speed between 2 and 10 Mbps

Increasing internet speeds was a strategic goal for the Ministry of Telecommunications. Decisions taken to this effect contributed to having 67% of internet subscribers with a subscribed speed between 2 and 10 Mbps in 2015 as opposed to 13% in 2013, showing an increase of 415%. (Despite the limitations of the existing copper network which was gradually being replaced by optical fiber)

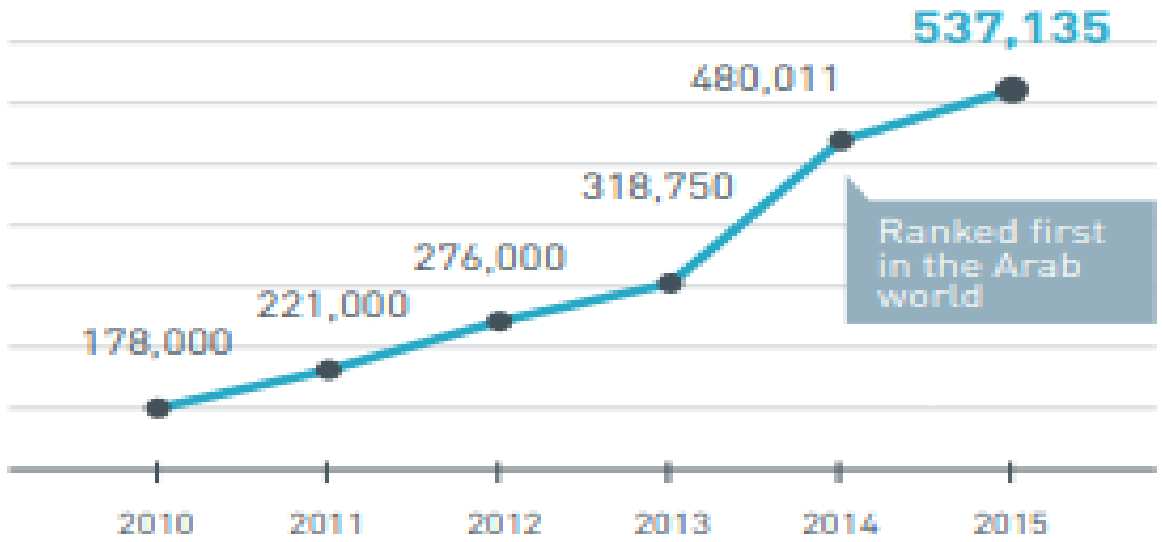
The number of new DSL subscribers



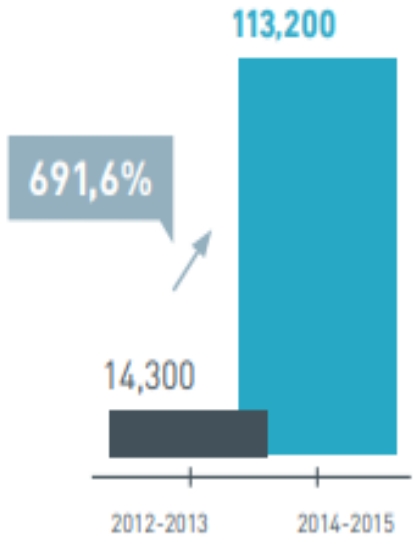
The daily average of DSL subscribers



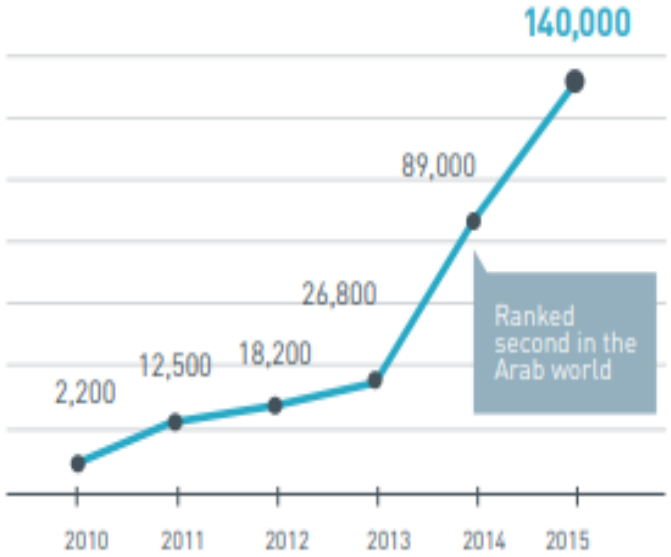
The total number of DSL subscribers



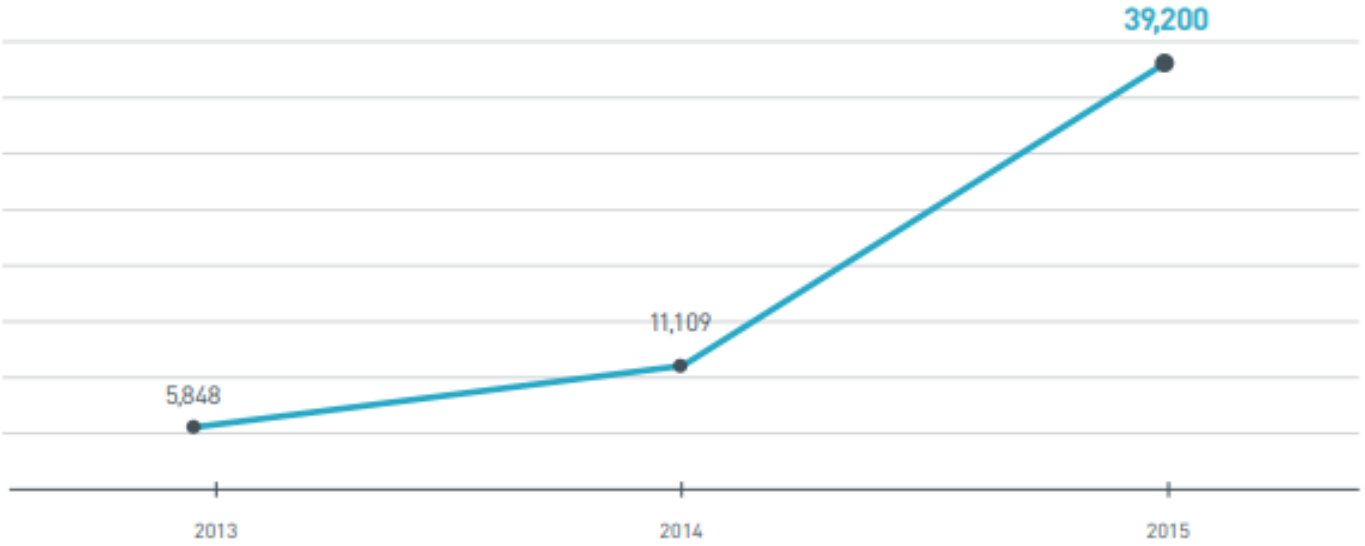
The growth of international internet capacities



The volume of international internet capacities



Total number of E1s dedicated to Internet Service Providers ISPs



MOBILE CELLULAR

Mobile cellular

4,504,631
the total number of mobile cellular subscribers

339,183
new mobile subscribers

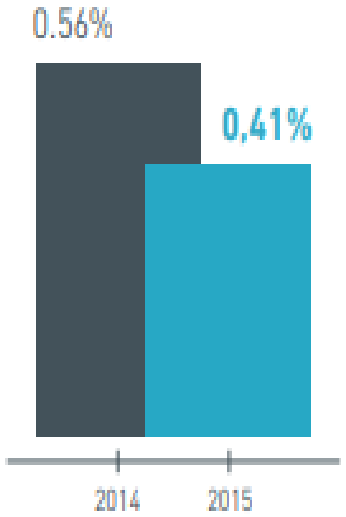
1250
new data mobile cellular subscribers per day

65 TB
the daily data consumption

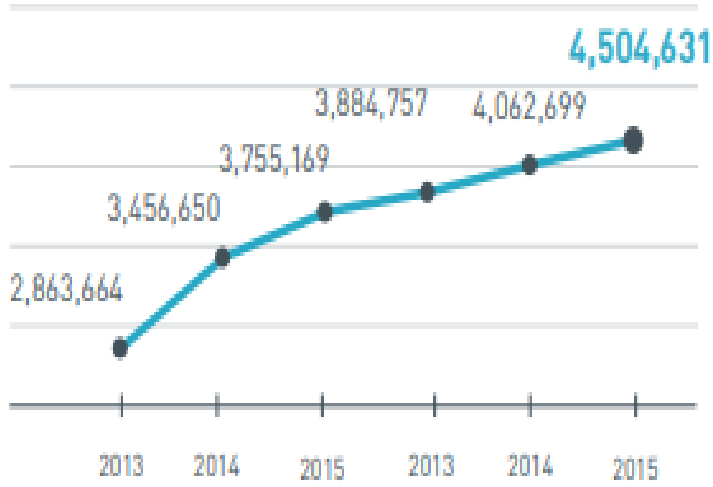
94%
penetration rate of mobile cellular

$65 M
increase in total state revenues from the mobile sector compared to the year 2013

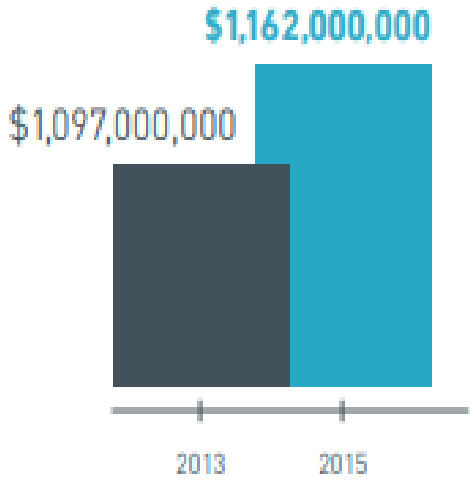
Dropped call rate



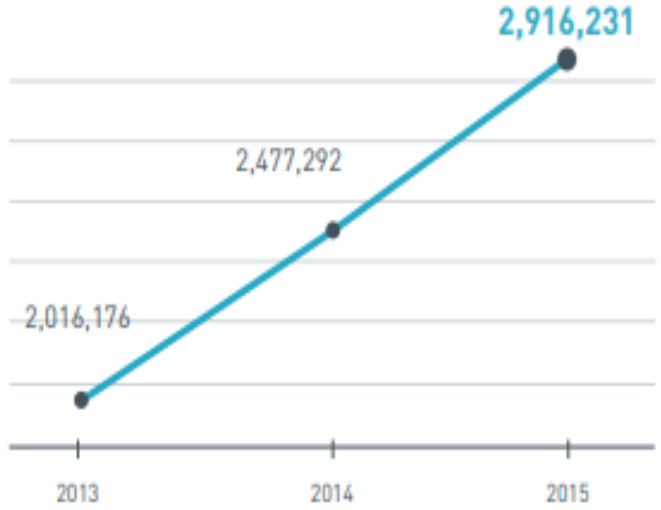
Number of cellular phone subscribers



Revenues of the mobile sector



Number of data subscribers



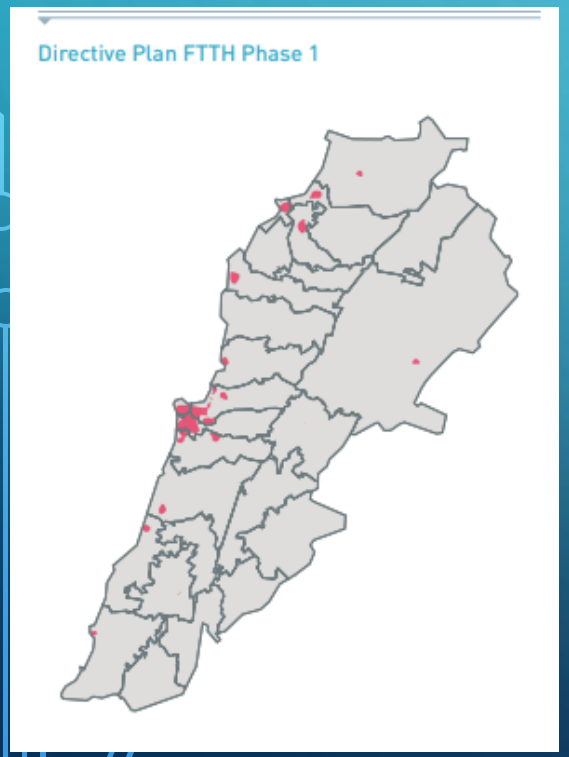
TELECOM ONE STOP SHOPS (OSS)

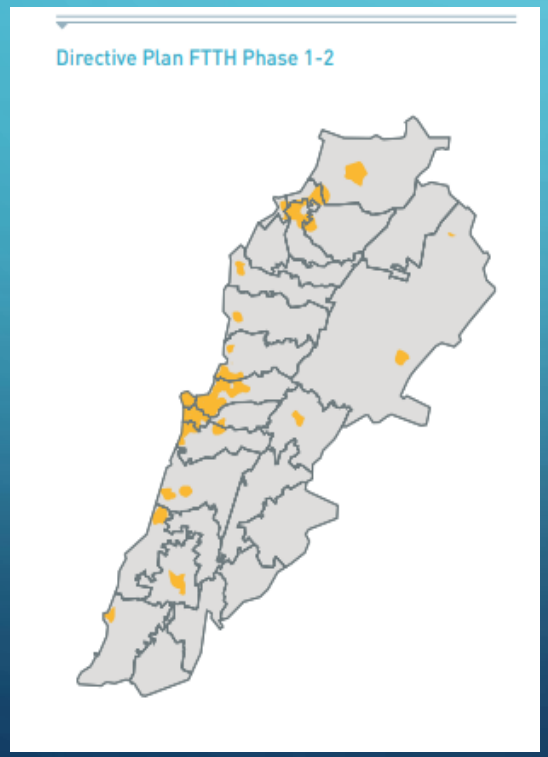
- Common sale centers (Telecom One Stop Shops) for Alpha, Touch and Ogero were set up to provide fixed and mobile telecommunications services.

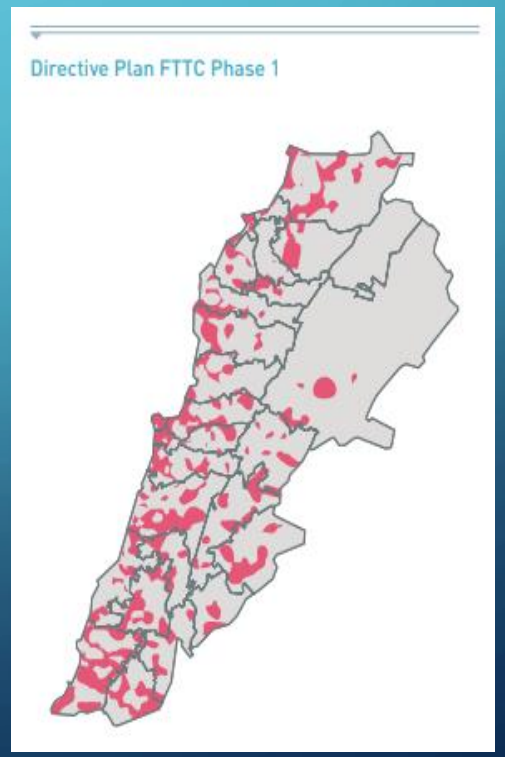
UPCOMING PROJECTS

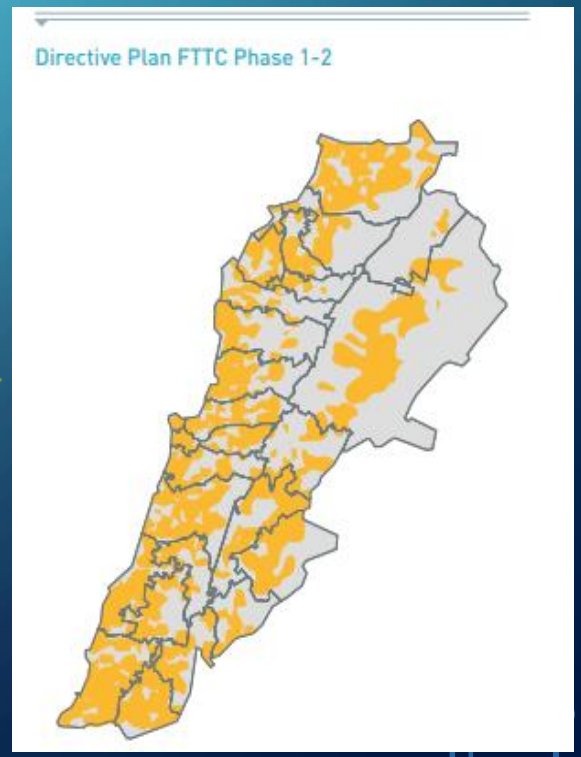
1.THE FIXED NETWORK: THE TRANSITION FROM COPPER WIRE TO FIBER OPTICS (FTTX)

Fiber to the Office or Organization	FTTO
Fiber to the Node	FTTN
Fiber to the Cabinet or the Curb	FTTC
Fiber to the Building	FTTB
Fiber to the Home	FTTH









ogero
it all starts here

Fiber deployment map

FTTx Deployment

ALL

FTTx 2018 - Q4

FTTx 2019 - Q3

FTTx 2019 - Q4

LTE-A Deployment

ogero
it all starts here

LTE-A Deployment Map

FTTx Deployment

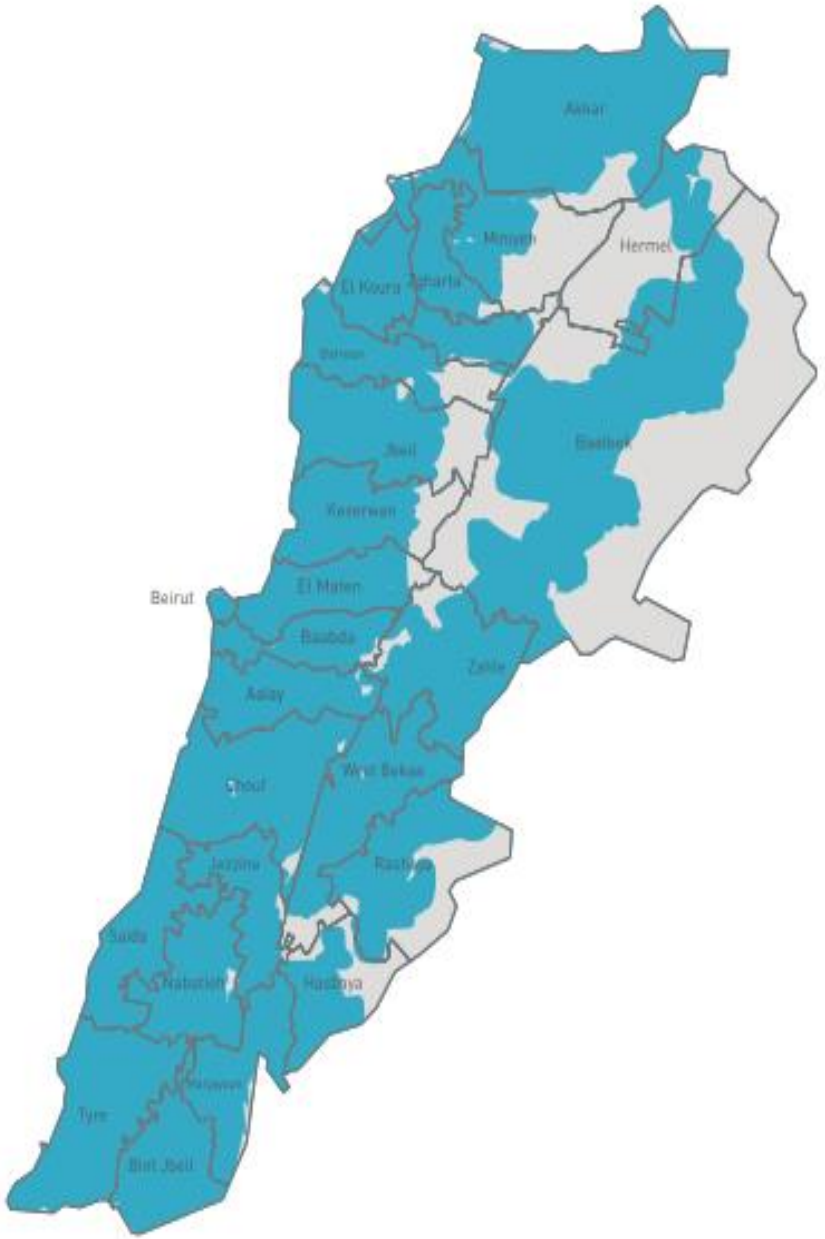
LTE-A Deployment

ALL

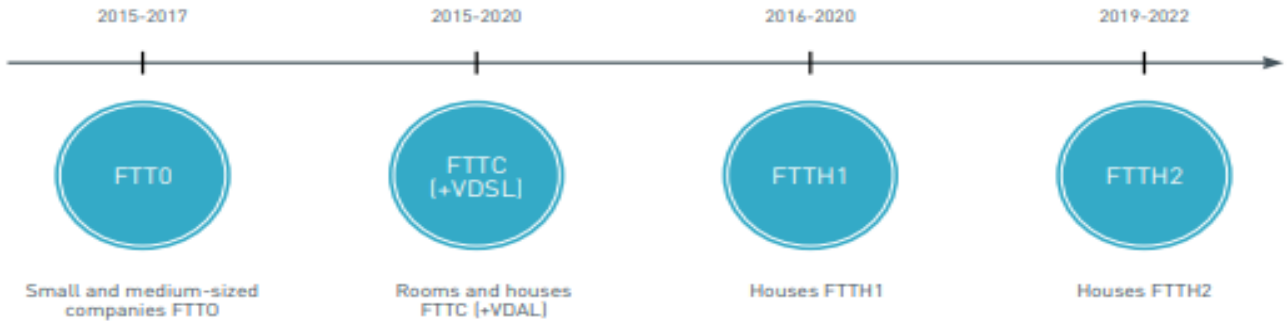
LTE-A 2018 - Q1

LTE-A 2019 - Q3

FTTX Project Final Phase



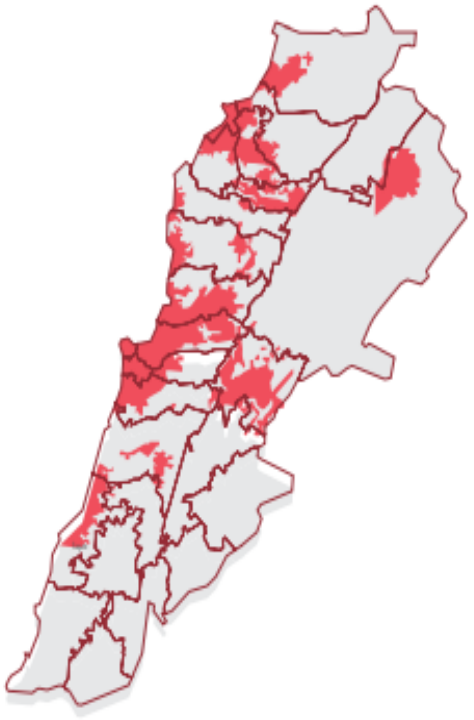
The road map



2.THE MOBILE NETWORK: THE TRANSITION FROM THE THIRD GENERATION (3G) TO THE FOURTH GENERATION (4G ADVANCED)

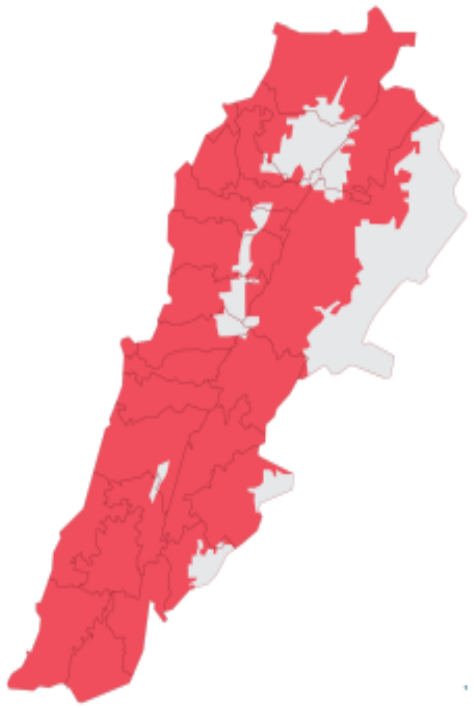
ALFA

The situation at launch 1/7/2014
39% of inhabited areas are covered by 4G network



ALFA

After implementation
97, 2 % of inhabited areas are covered by 4G network

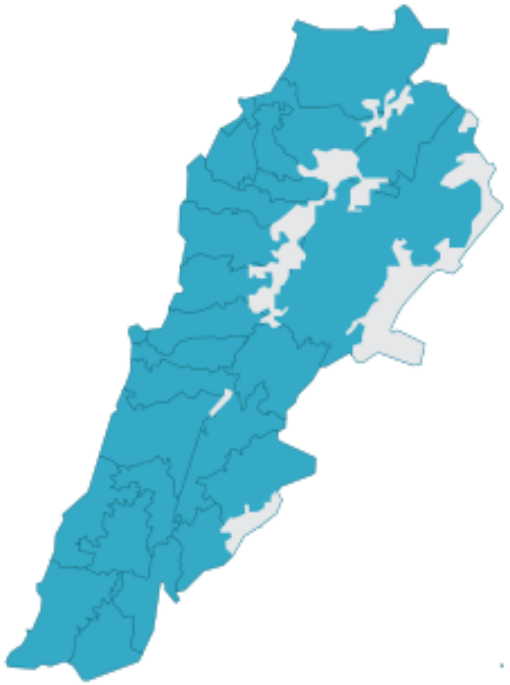


TOUCH

The situation at launch 1/7/2014
31% of inhabited areas are covered by 4G network

TOUCH

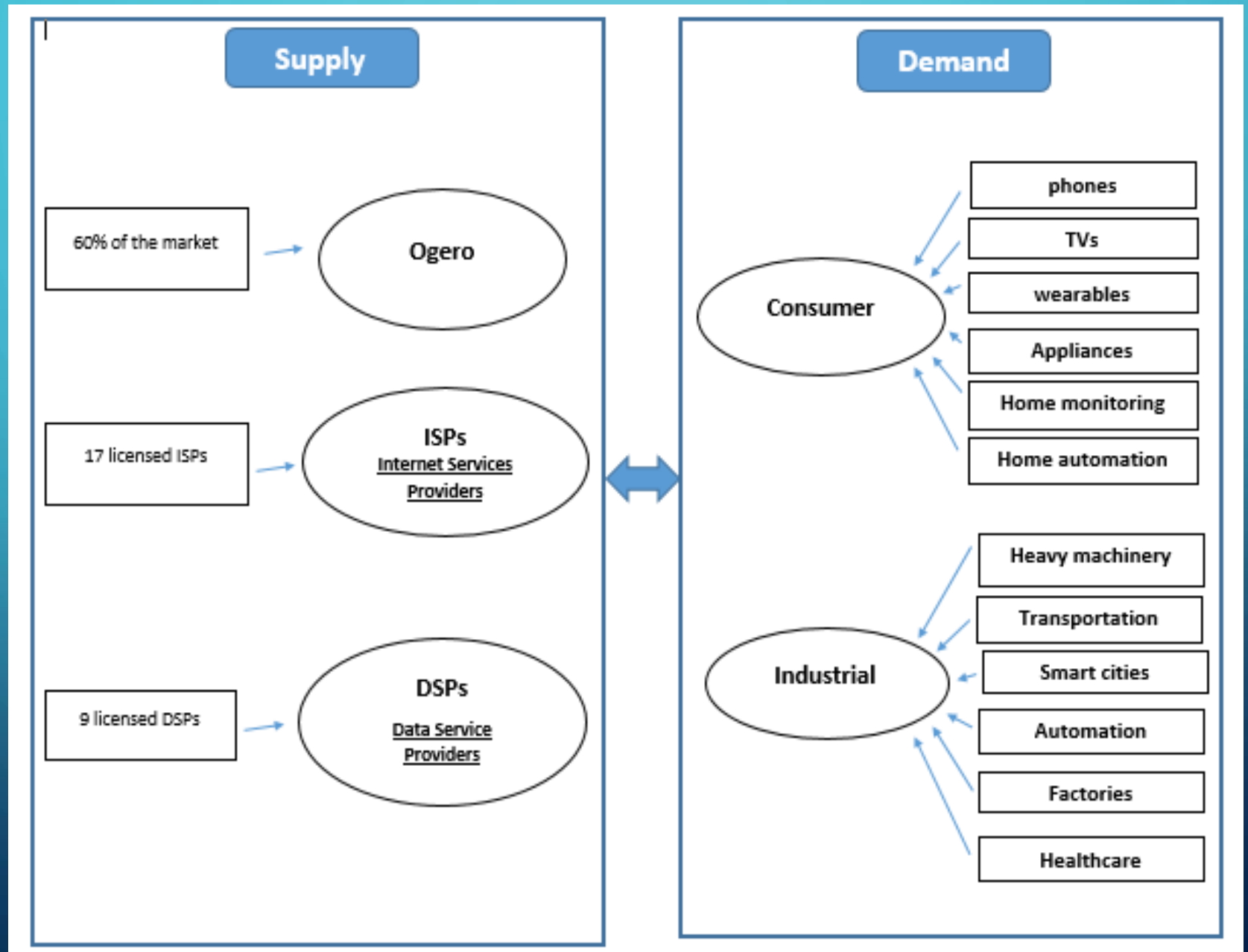
After implementation
99,4 % of inhabited areas are covered by 4G network



REASONS LEBANON'S INTERNET IS SO SLOW

- The brand new fiber optic network is not on :
  - This network connects the bulk of the central offices (COs) in the country as well as heavy users such as businesses, universities, hospitals, mobile operators and the army, with the newest generation of cables. This network, however, has not yet been approved for further development and use. The foggy reason given by advisors to the ministry is that there are mistakes made by contractors that are still in the process of being corrected.
- The last mile
  - the fiber optic network installed by CET and Alcatel–Lucent connected the COs and heavy users, it does not connect the COs to the final leg of the telecommunication network: the average end user. These connections are still made through much slower copper infrastructure.
- Bottleneck in the E1 lines
  - apparent obstruction in the distribution of international capacity to the private sector internet service providers (ISPs). Lebanon does not lack in international capacity. A very small percentage of this is actually passed down to the private sector ISPs. Some claims that one of the reasons Ogero is not granting the ISPs E1 lines is because they are reselling them illegally to Alpha, Touch, and illegal ISPs and DSPs.
- The high prices
  - The price of internet service is neither an outcome of market competition or of cost to the providers. Rather, the prices are set by the government and are linked to internet speeds, and every time the government wants to lower the price of the internet, they have to issue a decree. That means a service provider cannot actually lower the price of the internet without a change in the tariffs applied to them.

SYSTEM DYNAMICS



جزاكم الله خيرا