



Is LTE taking-off?

Business models and roadmaps 2010

Innovation Reports

This report provides an updated analysis of the LTE (Long Term Evolution) perspective as the next step towards 4G and real mobile broadband networks. It presents an in-depth analysis of LTE deployment strategies through the elaboration of an original cost model. This study presents roadmap scenarios and forecasts up to 2015. It also assesses the impact of LTE take-up on the overall mobile ecosystem.

Key questions

- What is the cost of deploying LTE?
 - What is the revised roadmap for the deployment of LTE?
 - What are the regulatory constraints for LTE deployment?
 - How will growth the mobile traffic and how LTS networks could be an efficient answer?
 - The high risk of LTE spectrum fragmentation is it a threat for LTE?
 - Could LTE accelerate the competition or the consolidation of the mobile market?
- > This report is a part of **IDATE's World LTE Market watch service** which includes a database, spotlight reports, monthly insights and a hotline



→ Is LTE taking-off?

Business models and roadmaps 2010

Contents

1. Executive Summary

2. Methodology

2.1. Market assessment and forecasts

2.2. Presentation of LTE deployment model

3. Revised LTE Roadmap

3.1. A healthy ecosystem...

3.2. ...Facing challenges

3.3. LTE deployments for 2010 & 2011

3.3.1. Europe

3.3.2. USA

3.3.3. Asia

3.3.4. Latin America

3.3.5. Middle East

3.4. Roadmap for LTE chipsets and devices

3.4.1. LTE chipset developments

3.4.2. Availability of LTE x mobile WiMAX devices

3.4.3. Chipsets and devices development

3.5. The growing interest in TD-LTE

3.5.1. FDD and TDD convergence

3.5.2. Competition between Mobile WiMAX/TD-LTE

3.5.3. The Chinese market to drive TD-LTE

3.5.4. India's auctions could increase interest in TD-LTE

4. LTE market forecasts

4.1. Global LTE forecasts

4.2. Japan and South Korea

4.3. China

4.4. USA

4.5. Europe

5. Competitive environment

5.1. Mobile WiMAX technology and the Clearwire strategy

5.1.1. The Mobile WiMAX versus LTE debate

5.1.2. Sprint Nextel and Clearwire taking the Mobile WiMAX time to market strategy

5.1.3. TD-LTE: the final destination for Clearwire?

5.2. Cable operators entering the market

5.2.1. Case US

5.2.2. Case Europe

5.3. LTE accelerates the consolidation of the mobile market

5.3.1. The technical concept of network sharing

5.3.2. LTE likely to trigger more network sharing deals

5.3.3. Example of LTE network sharing: Tele2 and Telenor of Sweden

5.3.4. Regulatory pressure on French operators

5.3.5. Outsourcing to third parties can provide a network sharing solution

5.3.6. LTE spectrum acquisition is unlikely to increase the number of players

6. Voice & SMS over LTE: which solution?

6.1. Technological enablers

6.1.1. CS fallback

6.1.2. Voice over LTE via GAN

6.1.3. Voice over IMS

6.1.4. IMS based solution gains global support

6.2. Monetising LTE deployment

6.2.1. Drivers for LTE deployment

6.2.2. Potential new services; not just the pipe

6.2.3. The mobile VoIP debate

6.2.4. Potential new pricing models

7. What is the cost of LTE deployment?

7.1. Scenario of reference: LTE overlay

7.2. Base case results

7.3. LTE: where the integrated operator is winner

7.4. Deployment cost for a greenfield operator

7.5. LTE coverage trends

7.6. LTE cost of deployment by population coverage

7.7. Enabling LTE in rural areas: deployment in lower frequency band

8. Key technological features&performance

8.1. OFDMA and spectrum flexibility

8.2. Evolved Packet Core architecture

8.3. LTE performances

9. LTE spectrum: high risk of fragmentation

9.1. Refarming of existing bands and new frequency bands

9.1.1. Main frequency bands for LTE

9.1.2. Frequency bands for TDD operation

9.2. LTE spectrum allocation

9.2.1. Dates of availability for LTE licences

9.2.2. 2.6 GHz spectrum allocation

9.2.3. Europe

9.2.4. Asia

Methodology: LTE deployment model

The network cost model developed to assess the level of investment required for LTE network deployment is composed of several categories of variables, which are directly or indirectly interdependent. The quantity of network elements needed for mobile service provision in a given area is determined for dense areas and populated areas.

100 pages

Print: 2 900 Eur

PDF: 3 500 Eur

July 2010

To order,
please contact :

Isabel JIMENEZ
i.jimenez@idate.org
tel: +33 (0)467 144 404

Project Manager

Frédéric PUJOL

f.pujol@idate.org

tel: +33 (0)467 144 450

Related reports from IDATE:

• LTE Watch Service

• Mobile Networks
Saturation

• Mobile VoIP

• Mobile Innovation in
Japan

www.idate-research.com