standards within the IMT-advanced family, focusing on 'candidate technologies and evaluation'.

Summary of debate

The Internet has played a huge role in global development. More than any other application it has been instrumental in helping users worldwide share advanced and up-to-date knowledge.

Access to mobility, availability of information over Internet and spectrum frequencies have become necessary prerequisites for global GDP growth.

As the uptake of mobile broadband increases, consumers are becoming increasingly keen to have more while paying less -especially in times of economic uncertainty. Contrary to some expectations, more contribution has been made to ICT R&D even in spite of the economic crisis. Operators are aiming to reduce the total cost of ownership and maintenance of their networks. Volume drives costs down. Developing a mass-market as quickly as possible helps development of technologies – e.g. GSM with its 3 billion subscribers. Operators need to have made the right technology choices in order to be ready to quickly move forward when market conditions become favourable.

WiMax or LTE offer promising solutions in situations where new technologies must address high traffic demand. LTE will be commercially available by end 2010 in Japan. Given limited frequency bandwidths, those technologies capable of avoiding interferences will be at an advantage (e.g. MIMO – providing higher data throughput – developed by KDDI). Cost will continue going down even with throughput speed up to 1 Gbit/s.

Time division duplexing technology adopted by TDIA uses small antenna and fewer frequency bandwidths. It is an appropriate technology choice, partly due to limited energy consumption. It offers an attractive choice for operators owing to its potential for cost reduction, and it is suitable for isometric data services.

The traditional principles of cellular network topology are based on frequency use and reuse, handover and location of user. However, high frequencies tend