An economic study of enhanced mobile broadband

The first steps towards offering 5G on a commercial scale will be taken within operators’ current business: mobile broadband for consumers. To better understand the economic impact of 5G, Ericsson explored:

- How 5G can help operators overcome the key challenges related to mobile broadband
- The economic case for increasing radio access capacity through 4G-only and 4G+5G deployment

Enhancing today’s services for tomorrow

The network evolution of a typical European operator was modeled. The analysis revealed that 5G will have significant economic benefits.

1. Improved data traffic management
   - Mobile data traffic is forecast to grow by eight times between 2017 and 2023.
   - 5G will enable new, cost-efficient tools to help operators manage data growth.

2. Enhanced ability to meet rising expectations
   - Operators have to continuously increase targeted service quality levels.
   - Consumers strongly associate 5G with increased speed, reliability and lower latency.

3. Monetization through first-mover advantage
   - Frontrunner operators gain strategic advantages by staying ahead of the competition.
   - The introduction of new technology, such as 5G, could be used by proactive players to gain market share and revenue.

4. Lower cost per gigabyte
   - 5G will enable additional capacity expansions on existing 4G sites, reducing the need for network densification.
   - New technology increases cost efficiency. The evolution to 5G will enable 10 times lower cost per gigabyte than current 4G networks.

5. Improved Net Present Value (NPV)
   - The cost efficiencies enabled in the 4G+5G deployment scenario improved the modeled operator’s NPV by 10 to 20 percent.
   - Market effects related to first-mover advantages and improved customer experience boosted NPV by a further 5 to 15 percent.