

- *Second edition* -

bmp TC Factbook on Wireless Broadband Access

Numerous platforms exist to deliver wireless broadband access to the user. WiMAX is eagerly awaited, further platforms such as wireless mesh or IP-overlay approaches are lined up. Yet there are a number of misconceptions about the potential and role of these technologies.

The bmp TC Factbook provides a targeted economical analysis and a concise introduction into the pillars of key Wireless Broadband platforms by consultants with a long-ranging experience in broadband local loop.

Context of the bmp TC Wireless Factbook

Wireless broadband platforms have been highly successful in the home-/office-networking field, but failed up to now to provide a true alternative for local loop access. So far wireless broadband access could only secure a niche in the corporate client segment, but was quite unable in turning towards residential clients. Numerous failures and bankruptcies line past commercialization efforts in the latter case.

Now a new generation of wireless platforms is about to be launched to the market with technology directed at both the corporate and mass market segment. With respect to past developments and the complexity of the wireless approach, service providers remain hesitant to embrace “**WiMAX**” (the interoperability standard for wireless access), **Meshed Architecture** and **mobile broadband** concepts beyond 3G. Quite appropriately WiMAX has been labeled to be at the “peak of inflated expectations” in the *Gartner Hype Cycle*. Other enthusiastic expectations for WiFi in the last mile also entice some cautious considerations. Meshed architectures hold some strong value propositions, but are still at an early development stage. Furthermore alternatives to UMTS for mobile broadband access have been lingering and are pushing to enforce their advantages/complementarities with plain 2.5 & 3G networks. These “mobility-centric” solutions (e.g. Flarion, IP Wireless) promise broadband access at mobile speeds even in cars or trains.

The bmp TC Factbook on Wireless Broadband Access explains and analyzes the different technologies from an economical perspective. The goal of the Factbook is a commercial analysis of the various platforms’ viability to sustain different business models.

Structure of the Wireless Factbook

- **Chapter 1:** Introduction
- **Chapter 2:** The Factbook first provides a high level assessment of the technical key factors that influence the commercialization of a wireless broadband platform. The reader will therefore gain the general ability to assess the position of various different technologies by judging on topology, frequency, line-of-sight dependence and standards-affiliation.
- **Chapter 3:** The chapter on technology describes and analyzes the background and specifics of WiMAX, mobility-centric solutions and meshed architectures. Included is a brief overview of suppliers for Mesh and the mobility-centric technologies, who remain proprietary.
- **Chapter 4:** This chapter explores the impact of technology and market framework on the business case. This evaluation focuses on the upcoming WiMAX standard and judges the viability of the potential market segments.
- **Chapter 5:** This chapter analyzes the structure and dynamics of the WiMAX supplier industry
- **Chapter 6:** The last chapter highlights the actual verification of technologies through ongoing pilots and commercial operations listing the known key deployments.

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