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# **Major 3G-radio performance breakthrough**

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**FFII.FR**

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Patented technology gives Alcatel price-performance leadership

**Cannes, February 18, 2002** &mdash; Alcatel (Paris : CGEP.PA and NYSE : ALA) today disclosed results of its recent advanced research program on UMTS base stations (Node B) that will generate significant cost reductions and higher performance for UMTS operators. These technology innovations will offer operators a more compact, reliable and cost-optimized solution.

The Alcatel 9100 Evolium™ MBS, demonstrated at the 3GSM World Congress in Cannes (Hall 1, Stand A5), illustrates Alcatel's leadership in UMTS technology, specifically in the field of baseband processing, power amplifiers and smart antenna technology.

- **Baseband processing** : The new Evolium™ MBS is equipped with baseband boards four times more powerful in terms of channel capacity (64 Adaptive Multi Rate (AMR) channels) than previous generations, thanks to a unique load-balancing technology patented by Alcatel. This allows more compact configurations as well as optimized resource allocation in the UMTS Node B. Furthermore ; a highly programmable platform will allow smooth integration of 3GPP (3rd Generation Partnership Project) feature evolutions.
- **Power amplifier** : new algorithms patented by Alcatel have been developed to increase the efficiency up to a factor three, in comparison with the first generation of Node B platforms. Such improvements will lower power consumption by approximately 20%. These major achievements allow for a more powerful amplifier within the same volume and at a lower cost.

These new algorithms will support the introduction of High Speed Downlink Packet Access (HSDPA) in UMTS.

- **Smart antenna technology** : major steps forward have been made by Alcatel's research teams to leverage the 9100 Evolium™ MBS' open architecture that will allow integration of smart antennas applications.

It has been demonstrated that capacity and range for a 2 carrier Node B with smart antenna is much larger compared to a 3 carrier Node B without a smart antenna, bringing significant cost decrease per channel.

This Research and Innovation program has been conducted by teams located in the Alcatel Research Centers of Stuttgart, Germany, and Marcoussis, France, together with the development teams of Evolium SAS, the Alcatel/Fujitsu joint-venture.

« These major technology achievements clearly demonstrate Alcatel's commitment to actively contribute to the success of UMTS. They open up promising perspectives for operators by providing higher-performance and cost-effective UMTS platforms », said Marc Rouanne, president of Alcatel's Mobile Networks activities.

### About Alcatel

Alcatel designs, develops and builds innovative and competitive communications networks, enabling carriers, service providers and enterprises to deliver any type of content, such as voice, data and multimedia, to any type of consumer, anywhere in the world. Relying on its leading and comprehensive products and solutions

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portfolio, stretching from end-to-end optical infrastructures, fixed and mobile networks to broadband access, Alcatel's customers can focus on optimizing their service offerings and revenue streams. With sales of EURO 25 billion in 2001 and 99,000 employees, Alcatel operates in more than 130 countries.

### **About Evolium**

Evolium SAS, an Alcatel-Fujitsu joint venture company established in 2000, combines Alcatel's expertise in GSM, GPRS, and EDGE as well as in ATM and IP technologies, with the advanced experience of Fujitsu as supplier of NTT DoCoMo, including both its highly successful i-mode service and world's first commercial 3G mobile communications service, introduced October 1, 2001.

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