



FTTX-PLAN consortium develops methods for optimizing broadband access networks

Vienna (September 20, 2009) – The Berlin-based research consortium FTTX-PLAN aims at developing tools and methods for planning future FTTx networks by combining photonics modeling and design expertise with network planning and optimization know-how.

The central goal of the project is to support the strategic decision process of city carriers and new local operators by performing an objective analysis that considers the varying, but always case-dependent boundary conditions.

The approach targeted by the Berlin-based consortium reduces planning uncertainties, supports a more realistic forecast of costs and also detects potential technological dead-ends early in the design process. Especially operators of future FTTx networks for city environments and small regions will benefit from these flexible analysis and optimization methods for strategic network planning as specifics of relevant technology and infrastructure parameters will be accounted for.

The build-up and operation of fiber based broadband access networks is associated with large and long-term investments in a passive network infrastructure, with depreciation over 10 years. Hence not only national operating service providers, but also city carriers, local authorities and municipal energy suppliers are very interested in installing infrastructures for broadband access.

To advance a positive business case, the techno-economic dependencies between total cost of ownership and technical possibilities of the available system technologies need to be well understood. A thorough understanding of photonic technology trends and limitations matched with sophisticated optimization techniques canned in computer-based methods and tools provides a key benefit for network planners of future FTTx networks.

The members of the FTTX-PLAN consortium cover all important competencies for developing new methods and tools for the techno-economic planning and optimization of broadband access networks:

The *Fraunhofer Heinrich Hertz Institute* is renowned for optical broadband communication systems and components design, *VPIphotonics*, a division of *VPIsystems*, develops the tools needed for the modeling and simulation of related photonic characteristics. The *Zuse Institute Berlin* provides powerful mathematical optimization algorithms, while *atesio* develops solutions for techno-economic studies which integrate the sophisticated optimization algorithms of *ZIB*.

The project is funded by the German Federal Ministry of Education and Research in the research initiative *KMU-Innovative*.

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About atesio

atesio turns state-of-the-art mathematical optimization technology into industrial solutions for the telecommunications industry. Leading fixed and mobile operators take strategic decisions (3G, LTE, NGN, FTTX) on the basis of custom-made techno-economic studies by atesio. They also master short-term optimization and configuration tasks (2G, 3G, SDH, MPLS) by means of atesio's award-winning and powerful network optimization components. For further information, please visit us at www.atesio.com.

About VPIsystems

VPIsystems is the leading provider of integrated capacity and network planning software and services for the global telecommunications industry. The company's OnePlan™ software system gives telecommunications and multi-service providers the ability to cohesively plan the financial, technical and marketing aspects of their network evolution, for all current and future network types. VPIphotonics, a wholly owned division of VPIsystems, sets the standard for software and services supporting end-to-end Photonic Design Automation and Optical Equipment Configuration. Its award-winning products are used by forward-looking groups, product design and marketing teams from over 100 commercial corporations and educators in over 140 university programs across the world. For further information, please visit us at www.VPIphotonics.com.

About Fraunhofer Heinrich Hertz Institute

The Fraunhofer Institute for Telecommunications, Heinrich Hertz Institute (HHI), is a worldwide leader in the area of broadband communication. Since 2003 the institute is member of the Fraunhofer society. The HHI has its core expertise in the areas of optical communication networks and systems, broadband mobile systems, electronics imaging techniques for multi media, and photonic components.

For 30 years now research and development has been performed in the area of optical transmission systems and photonic networks from high capacity flexible wide area networks to broadband in-house networks. All resources for design, modelling, measuring, and experimental verification of photonic networks are available at the HHI. For further information, please visit us at www.hhi.fraunhofer.de.

About ZIB

The Zuse Institute Berlin is a research institute for applied mathematics and computer science. Our research and service is driven by the principle 'Fast Algorithms – Fast Computers': We provide solutions for complex problems in science, engineering, environment, and society – solutions that often require innovative approaches. In close cooperation with partners from science, the economy, and society we develop mathematical models and efficient algorithms. For further information, please visit our website at www.zib.de.