P17: France Telecom - FT (France)

Description of expertise & activities

France Telecom Research & Development is the corporate research and development arm of the France Telecom group, the major French telecom operator. Two laboratories are involved in BONE topics: within the Access Networks R&D division, Gateways & Home networks/Optical Access (GHOA) laboratory provides the operator's viewpoint in evaluation and experimentation of new technologies for introduction of broadband optical access and home services, definition of new network architectures and protocols to support these services, demonstrators for these new technologies and architectures both in the access and home network environment. Within the Core Networks R&D division, Metropolitan and Core optical Networks (MCN) laboratory brings its experience and operator's view on high capacity transmission and transport networks, with experimental evaluation at 10 or 40 Gbit/s of new functions, architectures and technologies for core networks, as well as precise views on operational impacts of new architectures and technologies and their feasibility and practicability in real networks. FT has been involved in European projects on optical and broadband access networks, e.g. TOPRATE, NOBEL, MUSE, e-Photon/ONe, NextGenPCF, IPHOBAC.

Tasks within BONE

WP11	VCE Network Technologies & Engineering : contribution on dynamic optical circuit switched networks
WP13	VCE Access Networks : contribution on 10 GPON and convergent RoF-based access networks
WP15	VCE Transmission Techniques : contribution on electronic mitigation of physical impairments
WP16	VCE In-building Networks : contribution on CWDM B&S optical home networks and OFDM for POF
WP22	TP MPLS, GMPLS & Routing : contribution on impairment-aware GMPLS and control mechanisms
WP24	TP Edge-to-Node Adaptation for Hybrid Networks : contribution on OBS and polymorphic networks

Key personal

Philippe Chanclou received the PhD degrees from Rennes University, France in 1999. In 1996, he joined FT R&D where he was engaged in research on active and passive optical telecommunications functions for access networks. In 2000, he joined the University of ENST-Bretagne as a lecturer where he was engaged in research on optical switching and optical devices using liquid crystal for telecommunications. During 2001 to 2003, he has participated to the foundation of Optogone Company. Since 2004, he joined FT R&D where he was engaged in research on the next generation optical access networks.

Benoît Charbonnier graduated from the Ecole Nationale Supérieure des Télécommunications de Paris (France) in 1993 and received the PhD degree from the same institution in 1997. From then to 2000 he worked in the advanced technology group of Nortel Networks in Harlow (UK) on very high bit rate optical transmission. In 2000, he joined Marconi Communications in Stratford-upon-Avon (UK) to work on the design of a commercial ultra-long haul transmission system. Since 2004, he joined France Télécom R&D in Lannion (France) to study next generation optical transmission systems and, more recently, radio over fibre and short reach optical networks.

Stéphane Gosselin joined France Telecom R&D at Lannion in 1993, where he first studied fast free-space optical switching systems. From 1997, he has been working on WDM networks. He led an R&D group of France Telecom on optical transport network technologies from 1999 to 2003, and has been leading France Telecom long term research activities on optical networks since 2003. He was/is involved in several French and European (ACTS/DEMON, IST/TOPRATE, IST/NoE/e-Photon/ONe) projects dealing with optics. He has been a member of technical program committee of ECOC since 2004.

Esther Le Rouzic received the telecommunications degree from Ecole Nationale Supérieure des Télécommunications de Bretagne, France, the M.S. degree from the University College London, U.K., in 1996, and the Ph.D. degree in electronics and communications from Ecole Nationale Supérieure des Télécommunications, France, in 1999. She joined France Telecom R&D in Lannion in 2000, where she has been working on WDM networks, optical functions, optical transmission, and translucent networks. She was/is involved in national (RNRT/RYTHME) and European projects (IST/Toprate, IST/NOBEL2, IST/NoE/e-Photon/ONe+) dealing with optics and authored or coauthored more than 20 national or international papers or communications.

Erwan Pincemin has been R&D engineer in France Télécom R&D for 7 years. He is in charge of the studies on high bit-rate optical transmissions (40Gbps and more, advanced modulation formats, Raman amplification, PMD). He was previously employed by Alcatel as a PhD student where he studied solitonic optical propagation and all-optical regeneration applied to the submarine transmission field. He authored or co-authored more that 60 publications or communications as well as 15 patents. He was/is involved in French RNRT ERMIONE project, IST NOBEL I & II projects, and e-Photon/ONee European Network of Excellence.