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**Dr. Bernhard Kölmel** is vice-president of innovation management and strategic development within the CAS Software AG group, specifically he is head of research at YellowMap AG (daughter company of CAS). Before he joined the CAS group he was head of the departments Technology Transfer Business Process Engineering and Management at the IT research center (FZI) in Karlsruhe. FZI is an interdisciplinary technology transfer institute specialised in industrial take-up projects of highly innovative information and communication technologies (ICT). Dr. Kölmel received his PhD with honours from the University of Karlsruhe (economics of software engineering).



**Dr. Günther Würtz** finished his studies in manufacturing engineering at the university of Stuttgart in 1986 and his PhD in 1992. In between, he worked as a scientific employee and consultant at the Fraunhofer Society for Applied Research (FhG-IPA, Stuttgart). After that, he joined several international operating companies and overtook as factory manager top management jobs. In 1998, he established his own consultancy company within the Steinbeis Foundation for economic promotion, Stuttgart, dealing mainly with product and process innovations. In 2004, he founded his own training and education institute at the international Steinbeis University, Berlin, with the main focus on innovation management, knowledge management and change management.



## Ambient; Multimodal and Context-Sensitive Lifelong Learning

The objective of the AMBIENT LEARNING project is to provide a pragmatic, easy-to-use eLearning service, which allows any time, anywhere and anyhow access to personalised, high quality learning content. AMBIENT LEARNING is an eLearning web-service, which allows to use "any content", from articles out of magazines, internet articles up to SCORM (Shareable Content Object Reference Model) based eLearning solutions and deliver it to the user based on the user context (time-, location-, device-dependent) at any time and any how. The service is based on stable and mature technology and offers ambient, multi-modal, multilingual, personalised and context-sensitive access to learning at work, at home, at a training institution or on the move. The service will be demonstrated around five European regions (Italy, Germany, Greece, UK and Ireland). This project is at market validation stage and is partially funded by the eTEN Programme designed to help the deployment of telecommunication networks based services (eServices) with a trans-European dimension.

### Distinguishing Services of the System

- ◆ Multimodal Broadband Access allows the user access to eLearning objects any time, anywhere and anyhow. The AMBIENT LEARNING system supports broadband network access: with LAN, WLAN, GPRS, UMTS, Bluetooth, Satellite etc. The content is available based on the context as Wen-Document, as (mobile) Flash, as WAP (2.0), as read-out text (voice-XML and TTS), as interactive learning object (e.g. SCORM-based), etc.
- ◆ Context Management allows delivering the eLearning services in an individualised and flexible way, e. g. Profile, Role, Schedule (Calendar), Tasks, Working Content, Interest, Existing Know-how, Time, Place, Available Device etc.
- ◆ Content Integration allows integrating existing knowledge catalogues and eLearning resources. The benefit is to effectively 're-purpose' and target content, ending the costly cycle of recreating content for a particular need, audience, or distribution device, and to protect investments in already existing eLearning objects.
- ◆ Multilingual Access allows the user to define the language in which we wishes to receive the eLearning content. Interoperability allows to work with other systems or products without special effort on the part of the customer either by adhering to published interface standards or by making use of a "broker" of services.