



Business Unit Future Applications
and Media

Intelligent Media Technologies

Our expertise for your digital media transformation

We offer scientific consulting and study services, prototyping and proof of concept implementations as well as test environments for the evaluation of media technologies.



Dr.-Ing. Stefan Arbanowski, Director Business Unit Future Applications and Media

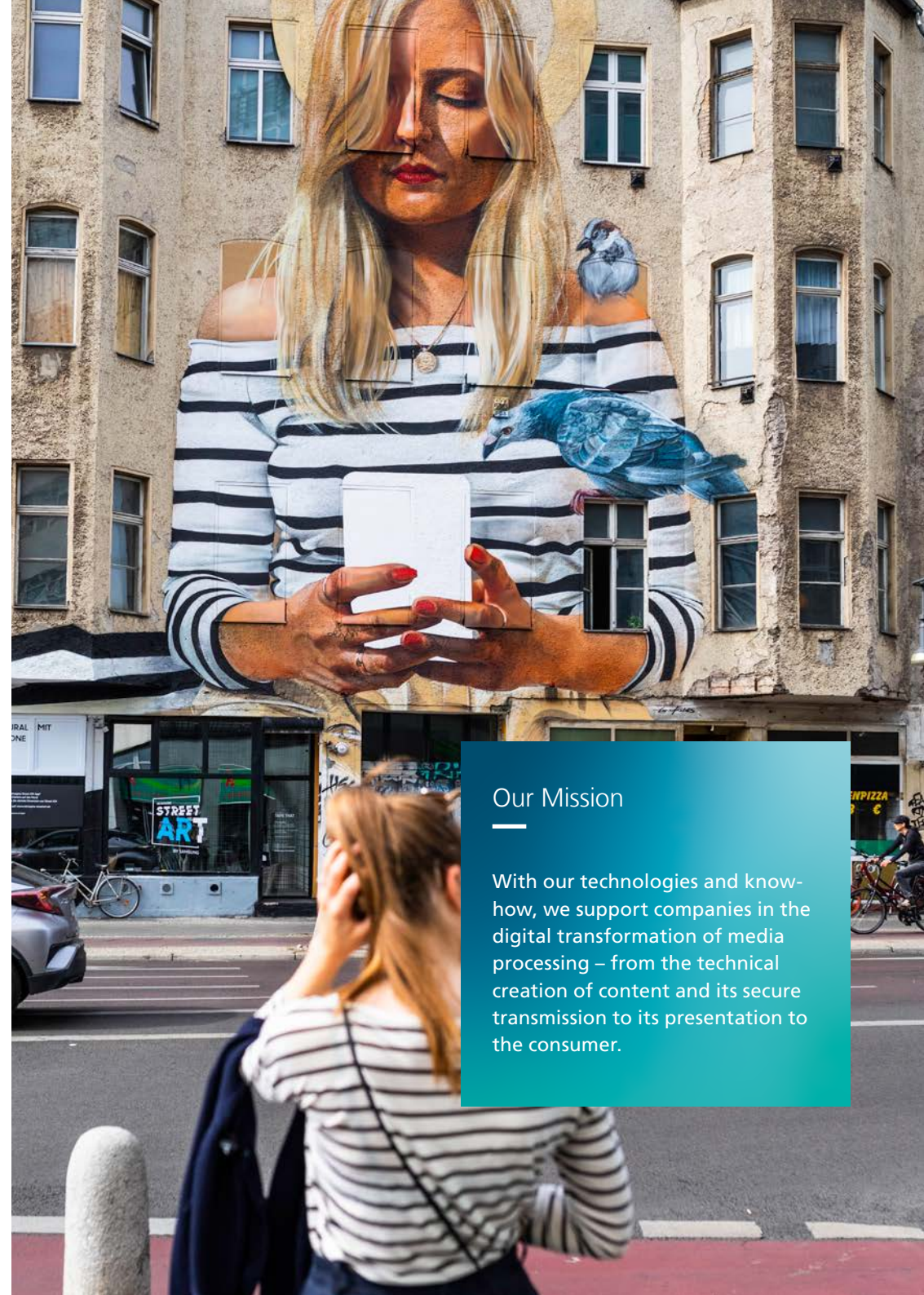
The [Future Applications and Media \(FAME\)](#) business unit supports its customers in the digital transformation of media processing. We integrate artificial intelligence (AI) and deep learning technologies, customizable services for a wide range of devices, digital rights management, and video streaming technologies with monitoring and AR/VR integration with our technical know-how. Our experts offer consulting and studies, prototyping and proof of concept implementations. Furthermore, our [laboratories](#) provide ideal environments for testing on various end devices and their evaluation. In doing so, we consistently use web-based technologies. Through our active role in the standardization committees of HbbTV, MPEG-DASH and W3C, we support industry customers in developing and evaluating interoperable solutions.



Dr.-Ing. Stephan Steglich, Director Business Unit Future Applications and Media

Interactive and adaptive video streaming

Our [FAMIUM DASH](#), [FAMIUM DRM](#) and [FAMIUM SAND](#) solutions open up various possibilities to create, prepare and effectively distribute video streaming content in MPEG DASH and HLS formats for live and on-demand scenarios. Our [FAMIUM DAI](#) solution also supports the same streaming formats. The middleware facilitates the integration and management of ads in video content through simple tools. It supports app- and server-based ad insertion and allows scalable, dynamic, and cost-effective deployment into existing and new services.



Our Mission

With our technologies and know-how, we support companies in the digital transformation of media processing – from the technical creation of content and its secure transmission to its presentation to the consumer.



Technology

We rely on artificial intelligence and deep learning, web technologies, international standards, and MPEG DASH for digital media transformation. This provides our customers with intelligent and interoperable solutions tailored to their needs.

Intelligent Media Technologies

We also rely on AI and Deep Learning technologies in the development of media applications. Due to the variable complexity of video streaming content, dynamic bitrate adjustment is necessary to ensure a certain video quality or data rate. We use AI models whose algorithms enable title- and scene-based encoding for VoD and live streams. Regular validation and training of the models continuously improve the encoding results. [FAMIUM](#)

[Deep Encode](#) enables highly efficient and context-sensitive encoding by using Artificial Intelligence methods and Video Metric Reporting to meet desired Quality of Experience (QoE) expectations. All these features are combined in a cloud solution for scalable deployment in video-intensive applications. Artificial intelligence is also used in our [learning technologies](#) – algorithms for learning analysis enable the personalization and continuous adaptation of learning environments. Based on the analysis of usage data, recommendation

systems and chatbots help to make the learning and teaching process much more efficient. Our AI-powered solutions are also applicable to all types of learning systems and their components and enable merging different learning systems into sophisticated online learning environments.

Connected TV

We offer media operators diverse technologies and the know-how to adapt HbbTV formats individually. Our [FAMIUM Multiscreen Advertisement](#) solution allows suitable and interactive video ads to be played on mobile devices. Finally, our [HbbTV measurement and research tool](#) can be used to analyze the media usage of the target group.

Research focus

- Video Streaming and Digital Rights Management
- Interactive Media, Mixed Reality, Augmented Reality, Virtual Reality, eXtended Reality
- Deep Media (Artificial Intelligence, Machine Learning, DeepLearning)
- Addressable TV, HbbTV, Multiscreen
- Quality of Experience, Media Tracking & Audience Measurement
- Learning Technologies

Range of services

- Consulting and studies
- Prototyping and Proof of Concept-Implementation
- [Test Environment and Test Evaluation](#)

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