

Market segments and applications

LAN Office

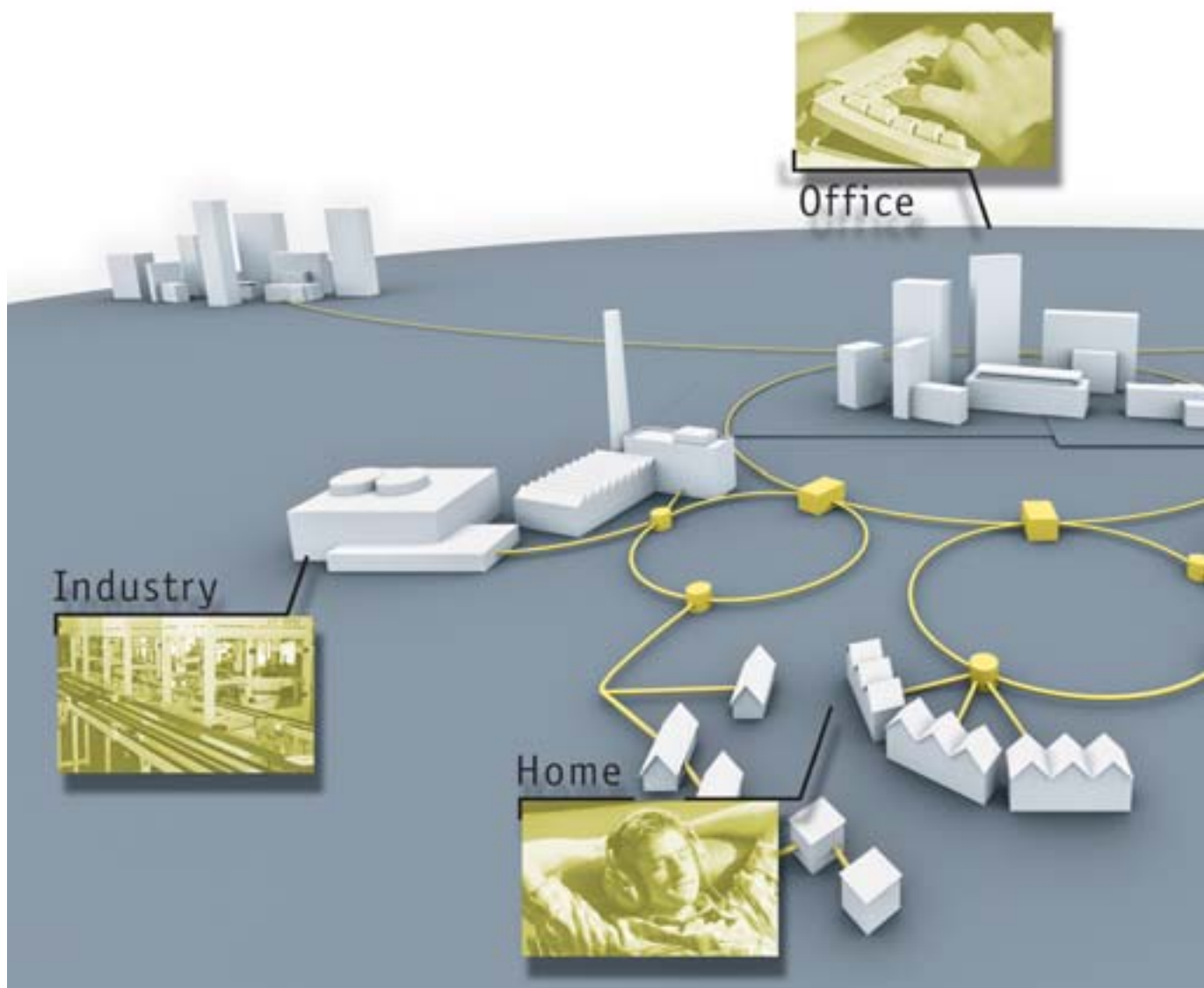
The scalability of Ethernet technology allows the constant expansion of the networks used for information engineering in buildings. In banks and insurance companies, research and development, universities, hospitals, hotels, airports and many other fields of application, high-performance, highly available Ethernet networks are indispensable for smooth operation and economic success. Besides the economically sound networking of PCs and printers, the intelligent combination of fibre optic technology in the backbone and copper technology up to the user allows IP telephony too. In addition, Power over Ethernet supplies terminal equipment such as WEB cameras, WLAN access points, IP telephones and notebooks with electricity and voltage – all via the structured copper cabling!

LAN Home

Whereas the LAN Office field focuses on the networking of printers and PCs, multimedia applications are the centre of interest in the LAN Home segment.

Service-independent broadband multimedia cablings provide the platform for combining information and communication engineering at the home workplace with the range of entertainment offered in the leisure field.

There are now an increasing number of components with network capabilities which can turn your PC into a television set, your television set into an Internet access point with a playstation and your stereo system into a storage medium for MP3 files.



LAN Industry

LAN Industry has become successfully established as a communication medium in industrial automation. The technology is now used on all levels for the networking of controls, drives, PCs and remote I/Os. Ethernet offers the advantage of a sophisticated, standardised technology as well as great potential for rationalisation:

- The worldwide IT standard
- Consistent communication to office computer technology
- Standardised protocols for data communication and web functions
- Scalable
- Transparent communication between all network participants
- Simplified programming, taking into operation and servicing



This and a large number of other advantages make Ethernet an interesting proposition for use in industrial automation. No matter whether the projects involved are in the field of manufacture, process or building automation, Ethernet is the technology for all applications.

MAN/WAN

The networking of the individual branches of a company within a city is usually achieved via a public MAN (**M**etropolitan **A**rea **N**etwork). The introduction of the 10 GbE standard provided a reasonably priced alternative to the classical telecommunication standards.

Ethernet also provides alternatives in the field of long-distance communications. Thus, standard single-mode fibres allow rapid WANs (**W**ide **A**rea **N**etworks) to be operated over distances of up to 40 km without additional active components.

However, Ethernet technology has become a part of WANs for lower data rates too: Deutsche Telekom gives its customers the opportunity to interconnect **L**ocal **A**rea **N**etworks (LANs) via Ethernet WANs at different locations. The bandwidth provided starts at 10 MBit/s and can be increased to up to 100 MBit/s depending on the requirements.

SAN

Large companies also often have extensive **S**torage **A**rea **N**etworks (SANs) whose high demands can also be met using 10 Gigabit Ethernet. Besides price and performance, the general serviceability of the company network often plays a major role here.



Conclusion: Ethernet technology now offers the information technology platform for virtually all market segments, in particular via the rapid Gigabit and 10 Gigabit Ethernet protocols.

KERPEN also offers the necessary high-performance cabling solutions designed to meet the demands of the future.