

## Targeting the home broadband network in real estate market

**What is the impact of a broadband home network to the value and function of a property?**

**What are the main criteria for a future proof home network and where do they come from?**

Homefibre is a company with main focus on the increasing requirements to digital home networking and smart home systems. It is our mission to optimize the future proof home network infrastructure for apartments and houses. We realized, that there are two main requirements to such infrastructure: **cost and quality of experience** (QoE). A builder or developer needs to keep building and installation cost under control. He wants to get the most benefit for lowest investment. The final customer assesses the quality of a service on what he gets delivered on the TV-screen, PC, Tablet, or to the phone, headphones or loudspeaker. He expects that delivered services work smoothly and without interruptions.

To achieve these goals also some other criteria must be fulfilled, as shown in the graphic.

**Availability** means that data cables are installed wherever they are needed or might be needed in the future. Ideally, that means that a data cable is available in each electrical outlet and distribution box, maybe for future transmission technologies also at each light outlet. Such infrastructure serves **flexibility and safety** for all parties: builder, service provider, installer and end-user. On the investment side, an electrical installation in combination with Polymer Optical Fiber (POF) allows to save up to 80% of wiring installation costs while wired connectivity can be increased by 400%.

TV services such as IP-TV (e.g. A1-TV; Moviestar TV, Swisscom-TV etc...) or SAT>IP (by Astra), Internet, music, video, IP security systems and last but not least Smart Home systems and AAL (Ambient Assisted Living) applications, wired or wireless, are connected via the optical broadband network in best quality.

The optical network provides **maximum flexibility**. The user can choose whether he wants to run his devices using WiFi or LAN. Not everyone defines optimal mobility the same way, because WiFi is perceived and evaluated quite differently by people. In case health concerns or sensitivity to electromagnetic fields influence the choice, an optical network provides the opportunity for

comprehensive wired connectivity or helps to reduce WiFi exposure to an acceptable level.

To **optimize mobility** WiFi works best when small WiFi cluster are installed in every room. These local WiFi-Access Points can work with reduced radiation power and they are equipped with a time control function. This also has positive effects on **system safety** and all over interferences. Compared to a network using WiFi only a wired network provides much more safety in regards to hackers and you being spied on.

Wired links with a bandwidth of 1Gbps and a star wiring architecture guarantees that each device has

the **bandwidth** it needs in order to stream the content in best quality and without any interferences.

**Energy efficiency** refers to the power consumption of the network components in relation to the actual transmitted data rate. WiFi and Powerline both need a lot of power to eliminate and to manage electro-magnetic noise and interferences. With the Homefibre energy is used very efficiently for data transmission since the optical POF cable

is immune to electromagnetic influences.

Thus a builder or developer is well advised to install a simple and very cost-effective pre-wiring in new buildings as well as in renovation with two affects:

- very low cost and comprehensive basic wiring with high added value
- customized and flexible expansion of the system

### **Summary:**

- In the Homefibre system the POF (Polymer Optical Fiber) cable is installed in one conduit together with the electrical installation and/or coaxial cable. This leads to a maximum coverage on wired basic data infrastructure.
- Installation cost of the data network wiring can be reduced by 80% while network coverage can be increased by 400%
- Active Network components such as data outlets or WLAN Access Points are only installed where and when they are needed.
- All wires lead to a centralized multimedia cabinet next to the main power cabinet.
- The ideal broadband infrastructure is available everywhere in the home.



**Requirement to a Modern Home Network**

