



## WiBACK – CONNECTING THE UNCONNECTED

WiBACK Networks are in operation by early-adopters across the globe in varying scenarios. There is the German ISP that combines fiber and wireless links to connect farms and companies. There is the local utility company of a ski resort in Italy that extends its city-wide fiber network to connect hotels, firms and tourist attractions. And, there are Partners in Tanzania and Colombia that connect schools and hospitals to enable eLearning and eHealth services.



### CONTACT

**Fraunhofer-Institute  
for Applied Information Technology FIT**

#### Network Research Group

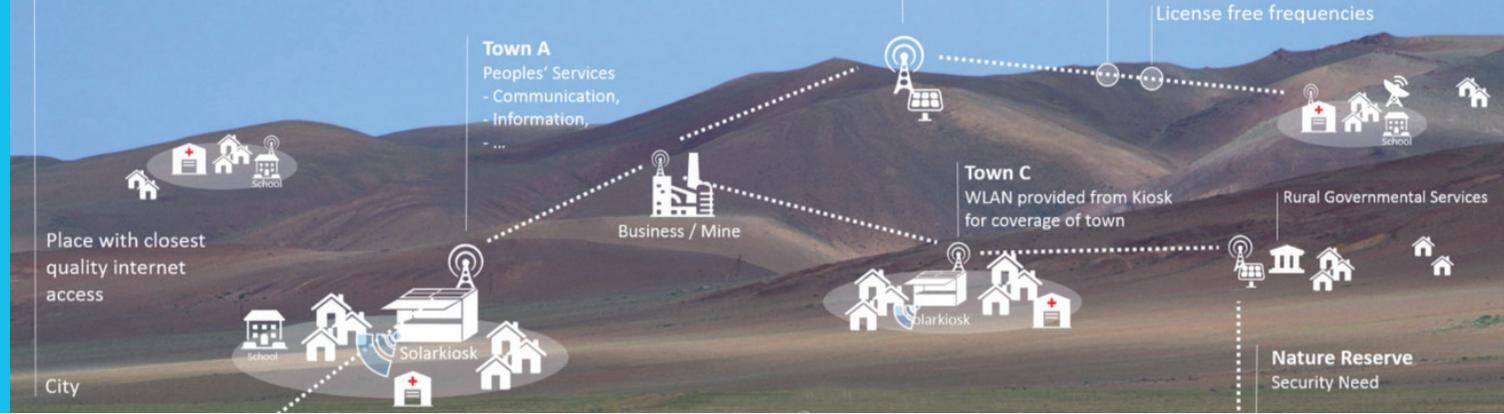
Dr. Mathias Kretschmer

Schloss Birlinghoven  
53754 Sankt Augustin  
Germany

Telephone +49 2241 14-2020  
mathias.kretschmer@fit.fraunhofer.de  
www.fit.fraunhofer.de

Or visit us directly at [www.wiback.org](http://www.wiback.org)





## THE CHALLENGE

People in rural areas often have only limited or no access to the Internet. About 4 billion people in rural areas are still unconnected, while urban areas are targeting gigabit connections to the Internet for every household. The main challenge are the high costs associated with most communication technologies (Fiber, Satellite, LTE) when operated in sparsely populated rural areas.

## THE SOLUTION

WiBACK follows the 'Inclusive Innovation' approach to bring broadband connectivity deeper into rural areas with good performance at lower costs. To achieve this, WiBACK enhances and cleverly orchestrates proven Internet protocols and components to form QoS-aware networks which can support triple-play service offerings. Low-power components also ensure small energy footprints and solar-powered operation.

## THE BENEFITS

With its ease of deployment, operation and maintenance, WiBACK significantly lowers the OPEX while providing a flexible, reliable and easy to manage solution which can grow and adapt to changing demands and requirements. Consequently, WiBACK allows us to "Connect the Unconnected", thus increasing the potential customer base and narrowing the "Digital Divide".

For Everyone. Everywhere

### Plug & Play System



- ✓ Auto Configuration
- ✓ Non-Expert Setup/Operation
- ✓ Solar Powered (Optional)

Cost Efficient

### Low CAPEX / OPEX



- ✓ Little Manual Maintenance
- ✓ Low Power Consumption
- ✓ Off-the-shelf Hardware

Quality

### Proven Concepts



- ✓ Reliability and Quick Recovery
- ✓ Carrier-Grade QoS
- ✓ VoIP, HD-Video, Data, ...