Informal presentation of FTTP equipment and infrastructure

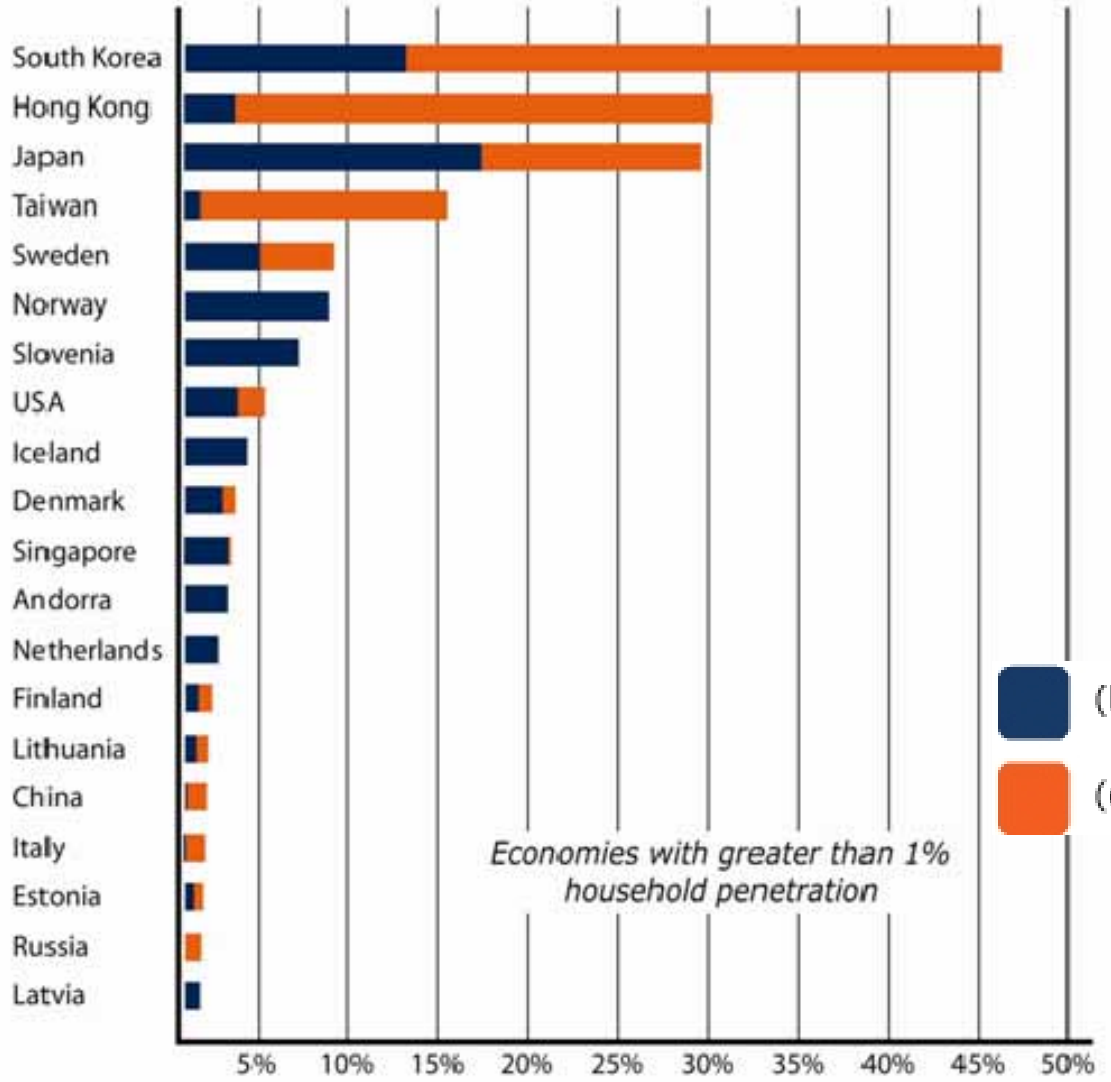
Senate Select Committee on the NBN

FTTH Council Asia-Pacific

The Council strongly welcomes the Australian government's FTTP initiative…

and our members are keenly interested in the details of how its going to be implemented…

FTTH Council research on economies with highest FTTP penetration

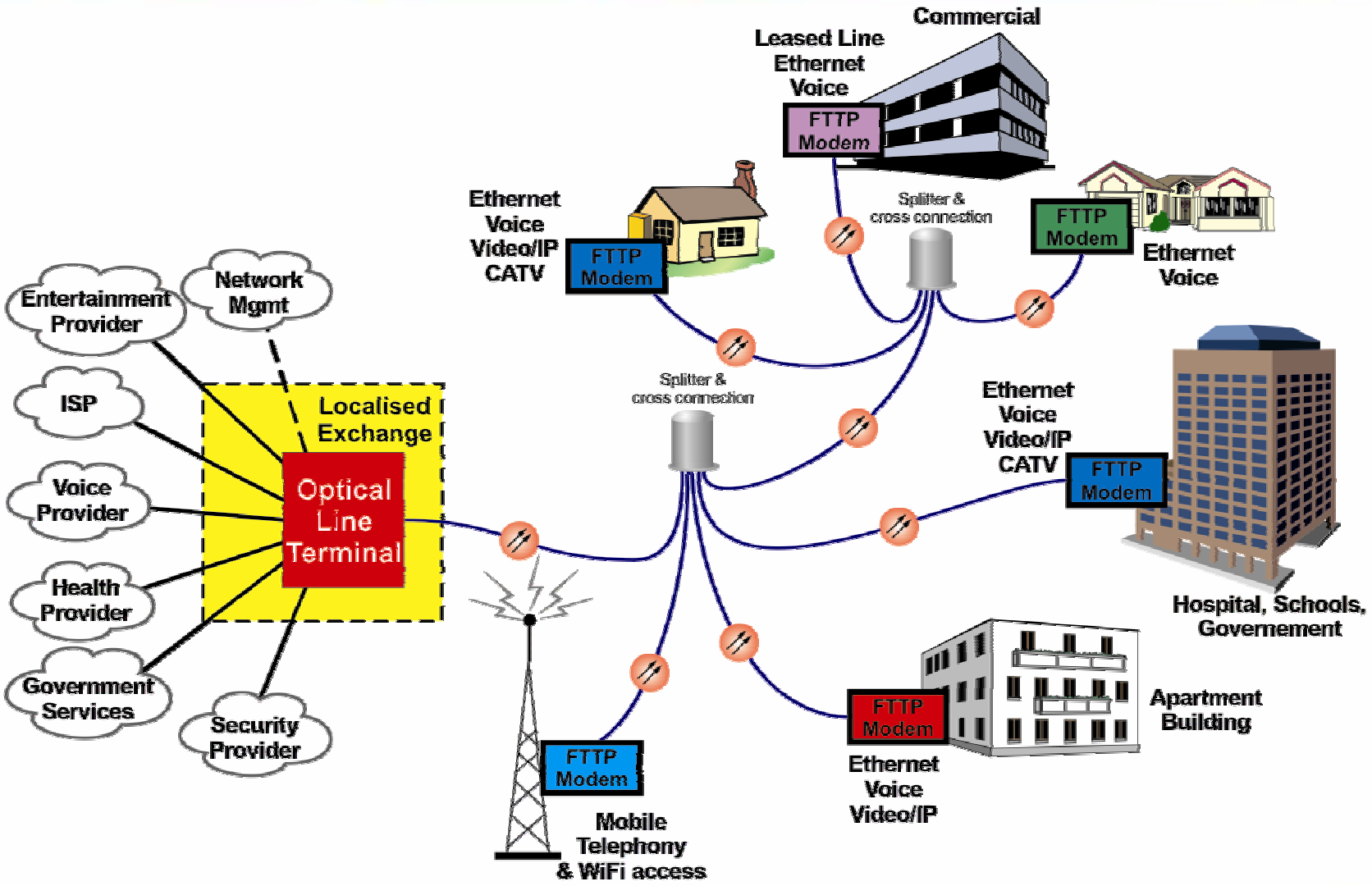


Source: Fiber-to-the-Home Council
May 2009

(blue) Fiber-to-the-Home Subscribers

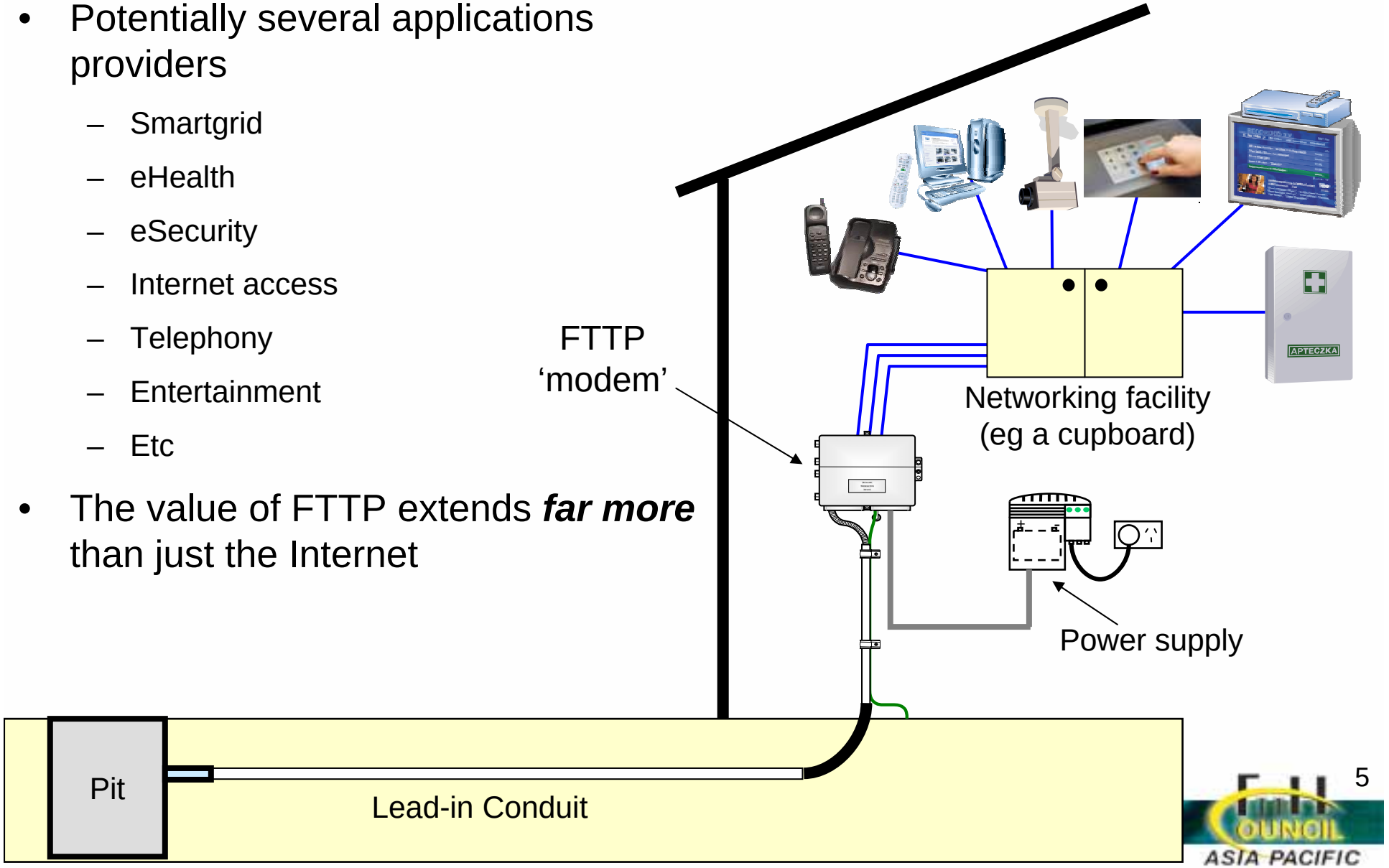
(orange) Fiber-to-the-Building + LAN subscribers

Key elements of an FTTP Access Network



Key elements of a residential FTTP deployment (underground example)

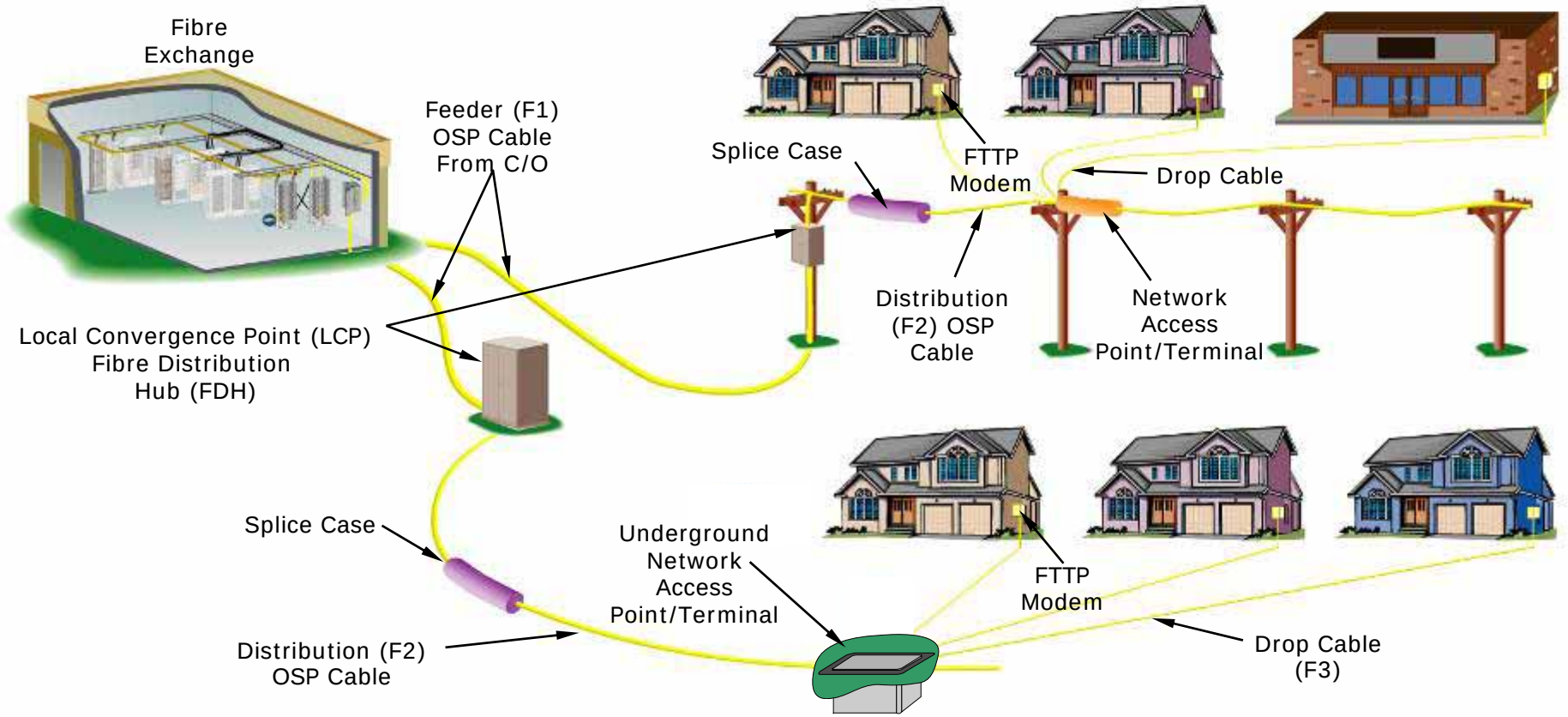
- Potentially several applications providers
  - Smartgrid
  - eHealth
  - eSecurity
  - Internet access
  - Telephony
  - Entertainment
  - Etc
- The value of FTTP extends ***far more*** than just the Internet



FTTP ‘modem’ mounted on an external wall
Supporting Cable TV, Telephony and up to gigabit broadband

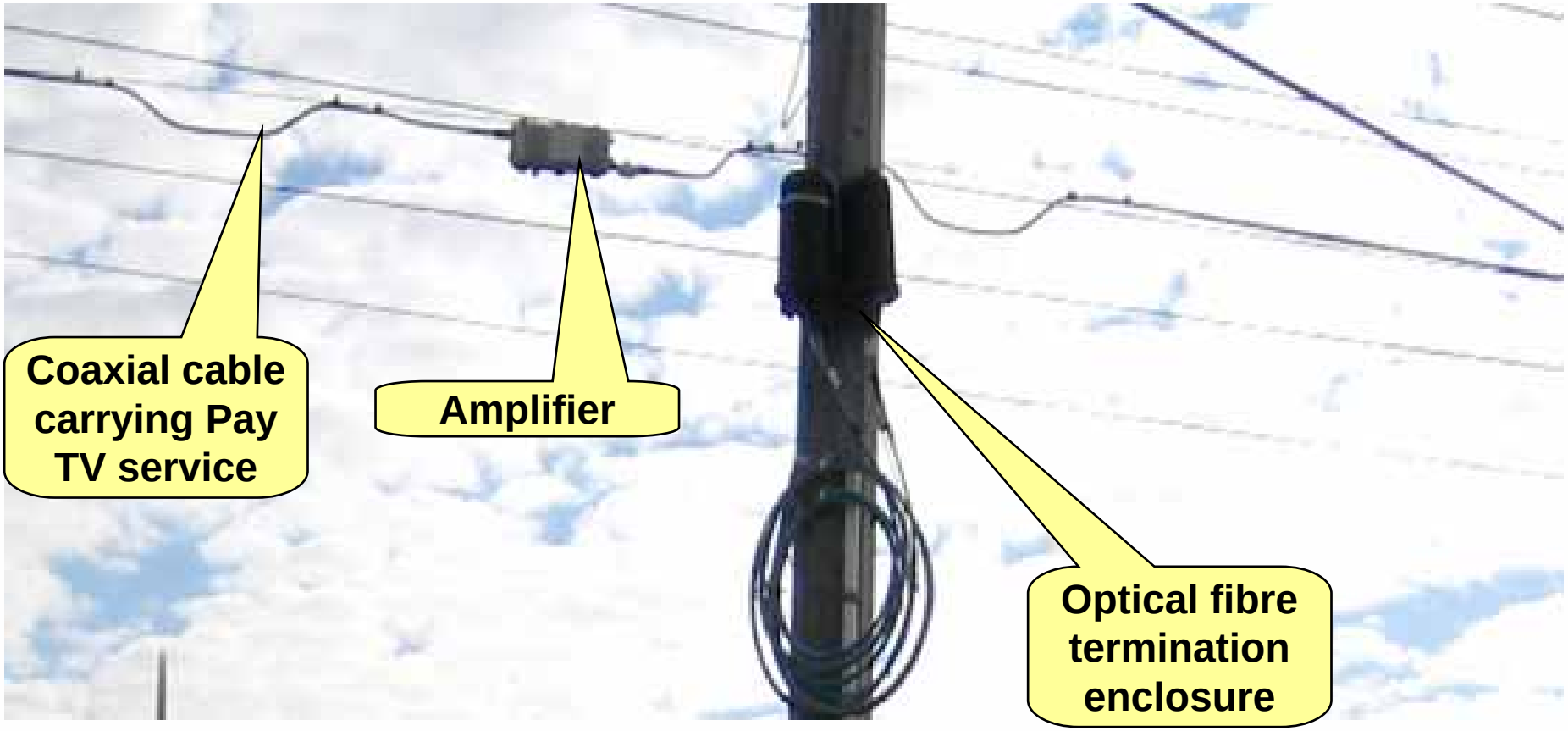
FTTP ‘modem’ mounted in an external enclosure (such as a meter box)
Supporting Cable TV, Telephony and up to gigabit broadband

Passive Optical Network – Fibre End-to End



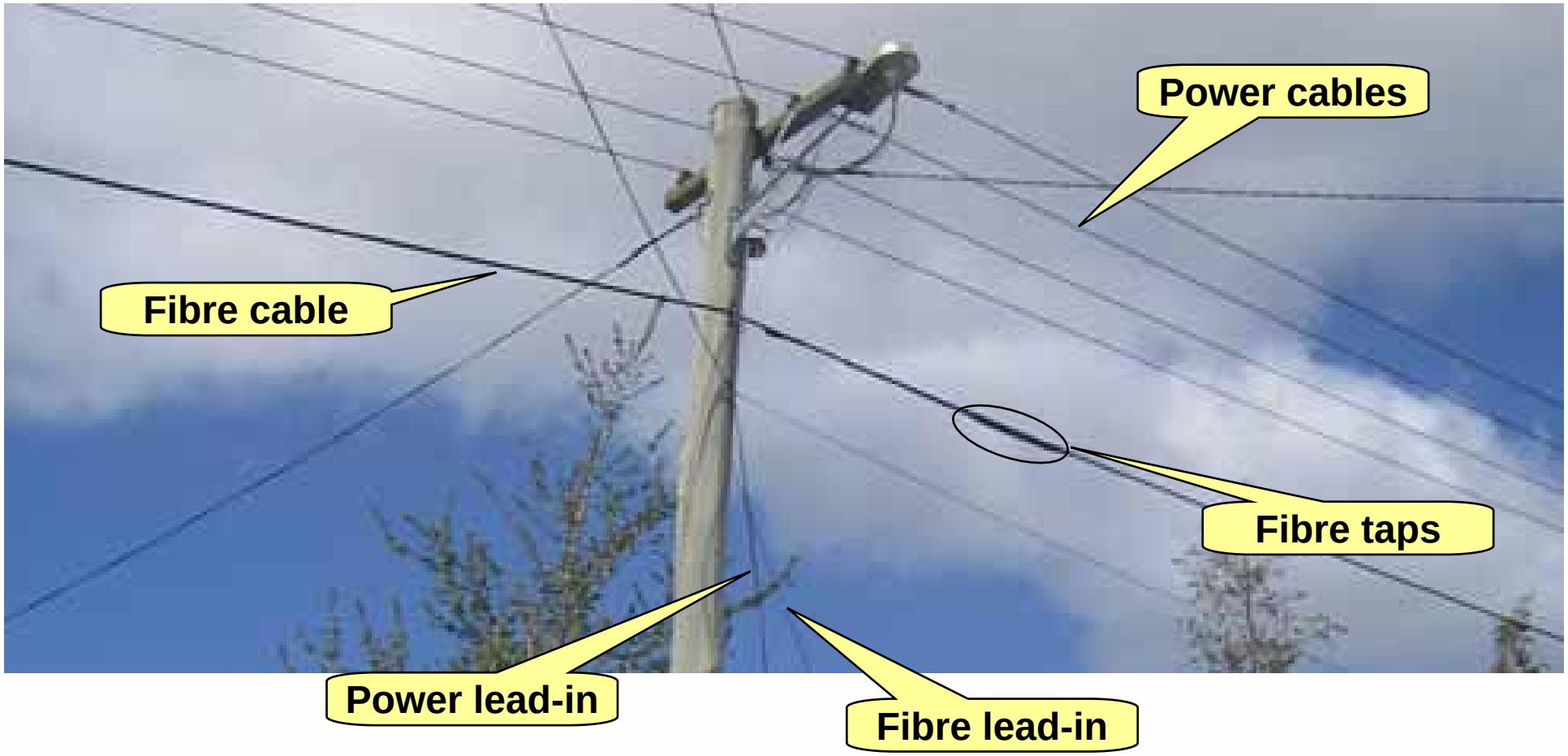
Pay TV delivery through aerial coaxial network

Pay TV delivery through aerial coaxial network



Pay TV, telephony and broadband delivery through fibre

Pay TV, telephony and broadband delivery through fibre

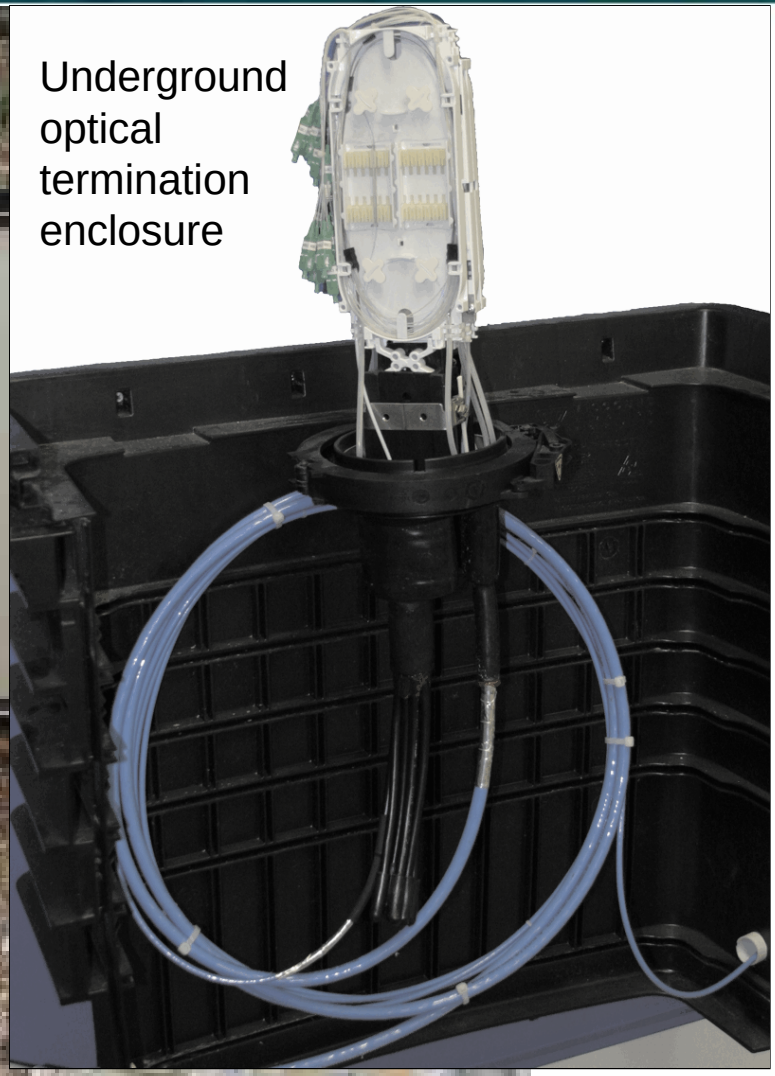


FTTP – can be deployed with almost zero community impact

The street furniture shown is for other utilities.

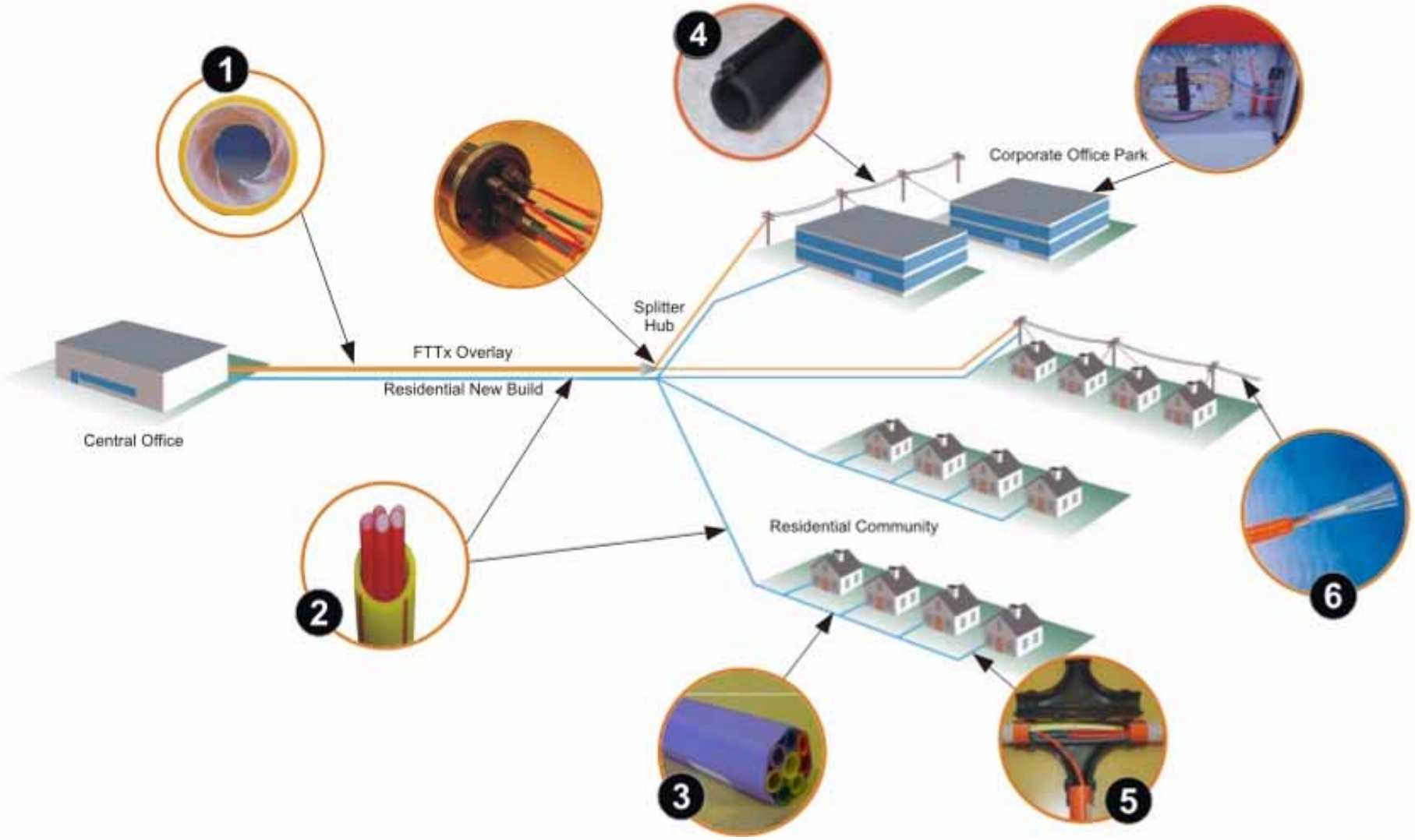
Example of FTTP street furniture

A fibre splitting pedestal / underground enclosure



Underground optical termination enclosure

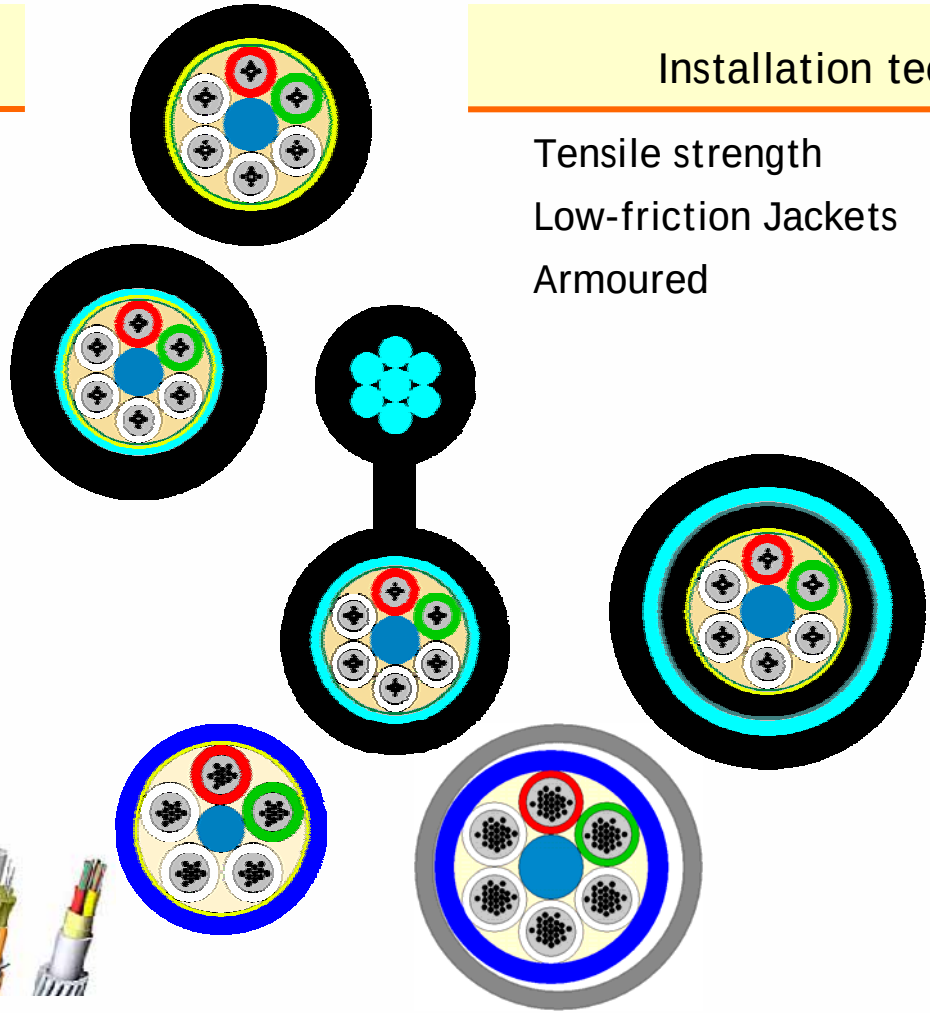
Fibre Cable options



Infrastructure Elements

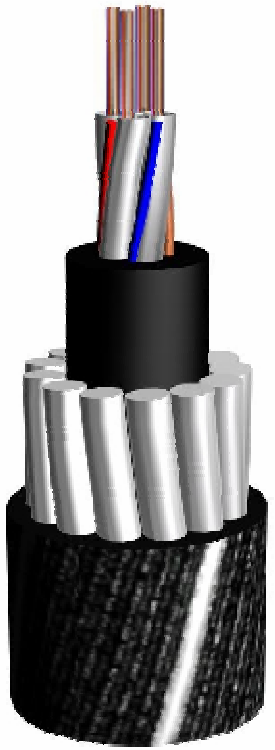
Environment

Watertight
Flame retardant
Anti-fungus
Armoured
Moisture or Gas Barrier
Hermetically closed
Rodent protection
Shot-gun resistant armour
Temperature performance

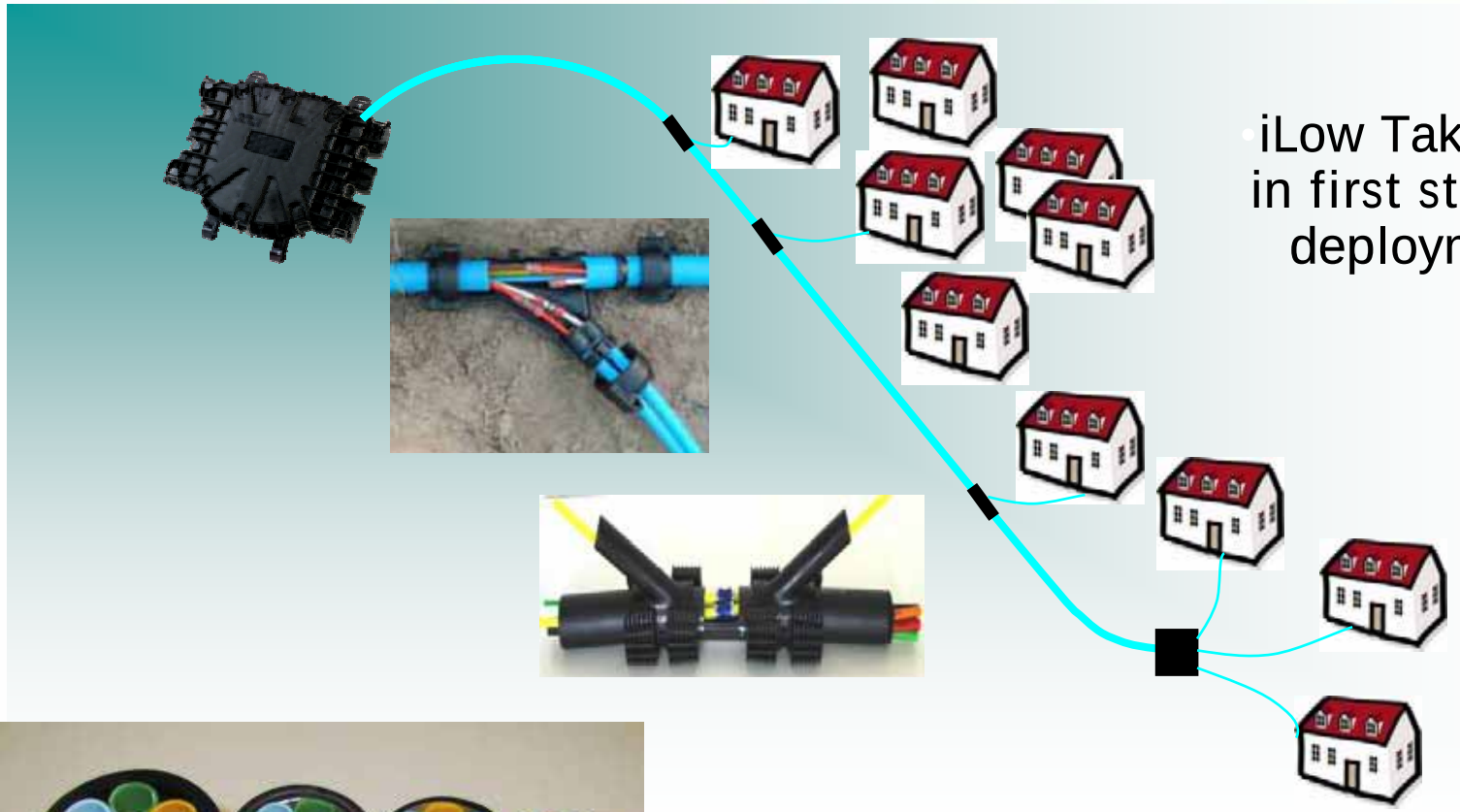


Installation technique

Tensile strength
Low-friction Jackets
Armoured

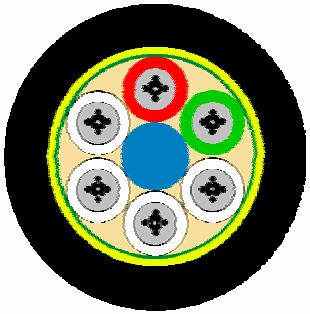


Micro Duct branching example

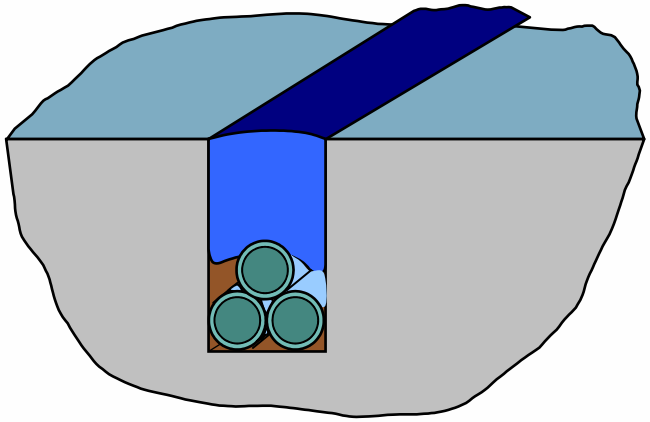


- iLow Take Rate in first stage of deployment

Mini trenching

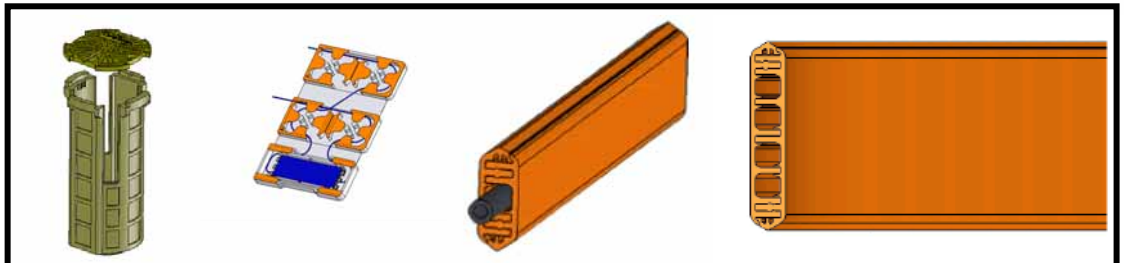


MINI TRENCH
OF 80 mm WIDE AND 350 mm DEEP



Micro trenching

Microtrenching



Access Node, Cable Managemennt,Conduits for 1&4 cables

12-25 cm depth,
up to 576 fibres

Zipping Conduit for Optical Cable Protection

Laying the conduit

Installation Complete

Lead-ins in pit
Pre-terminated and coiled underground awaiting hauling

Lead-ins and optical splitter, after installation

FTTP Optical Network in Japan
- Key technology for FTTP in Japan -

Ultra High Density Cable

1.1mm cord type

4000f High Density Pre-terminated Termination Frame

Remote Fiber Test System

Ultra High Density (Max.4,000f) & Quick Installation

Central Office (CO)

Indoor Cable

Low Friction for Quick Installation

Free Branch Cable

Quick Installation

Mini ODF

Quick Installation

Distribution Box

Quick Installation

Micro ODF

Smart Design

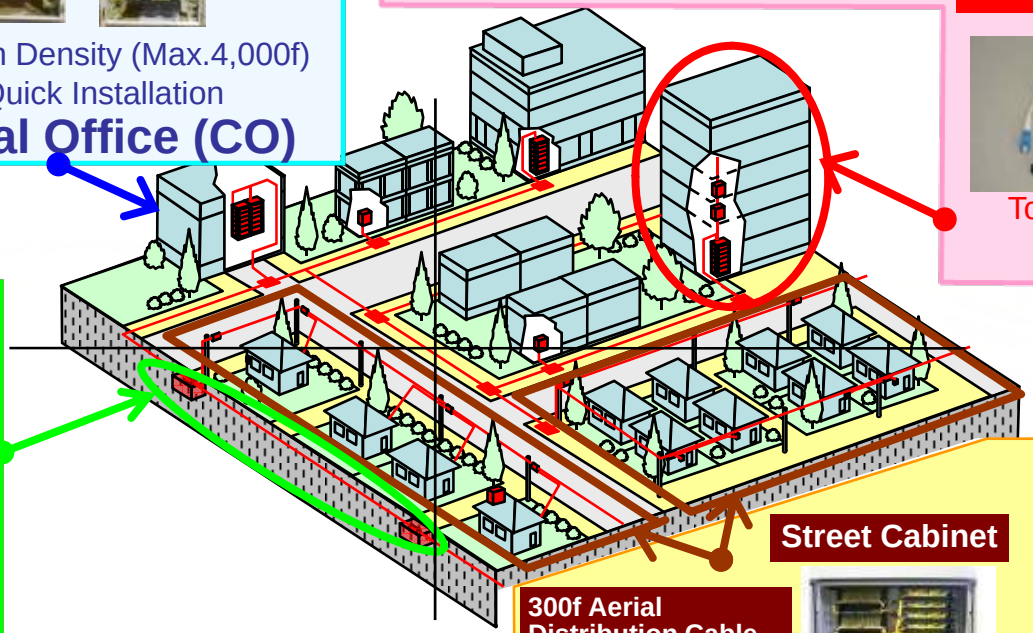
Tough Cord

Tough!

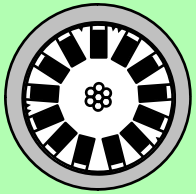
Field Ass'y Connector

Quick & Smart Installation

MDU



1000f Feeder Cable



1000 fibre High Density Ribbon Slot Cable

High Density Closure

Re-usable Sealing System

Feeder

Street Cabinet

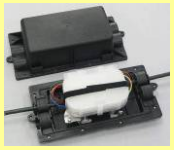
300f Aerial Distribution Cable

High Density & Quick Installation

Drop Cable

Low Friction for Quick Installation

Small Closure



Re-usable Sealing System

Access

END

Thank you