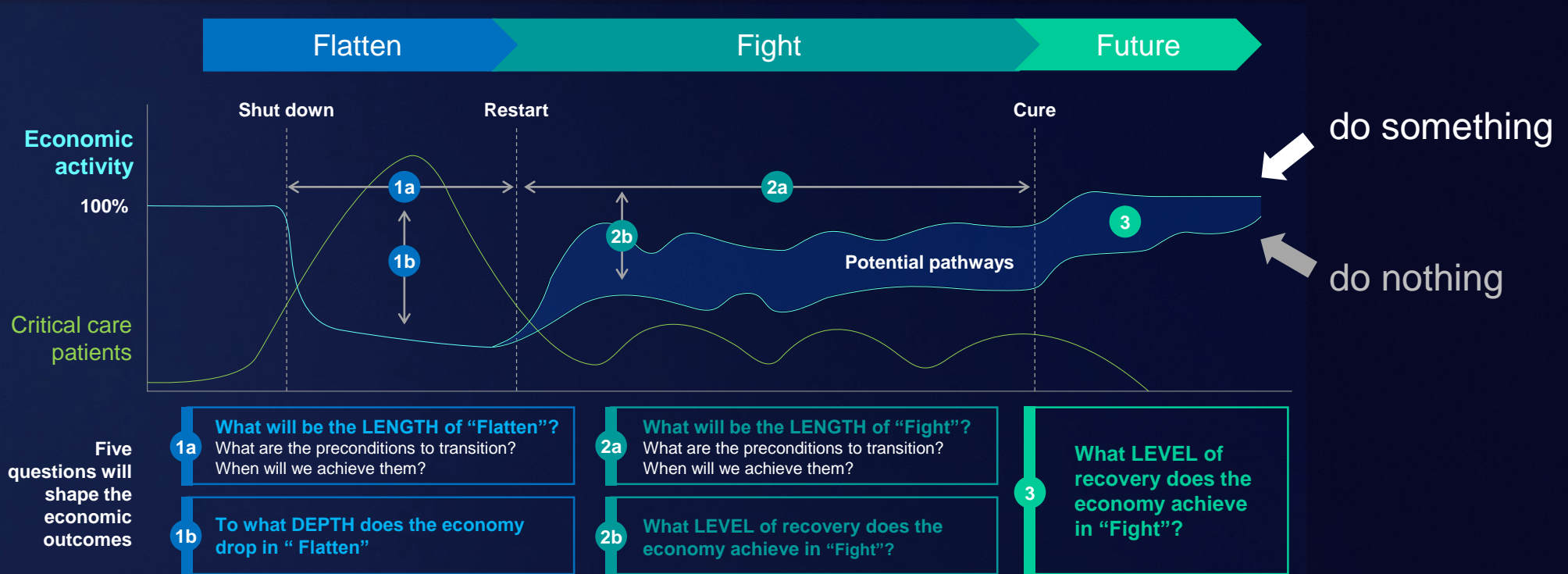


How to speed up national broadband development

Arthur, Kuan-Hong Chen



Broadband is becoming a must during and after COVID-19



Expectations on broadband



Agile and resilient foundation of business



Supply to shorten service TTM



Ease access to public e-service



gains citizen satisfaction



Raising service efficiency



Demand of quality connection



Policy of broadband Universal service

To remove obstacles of fiber rollout, it relies on the policy support of government



Central
Office

Subscriber

Pains of outdoor deployment

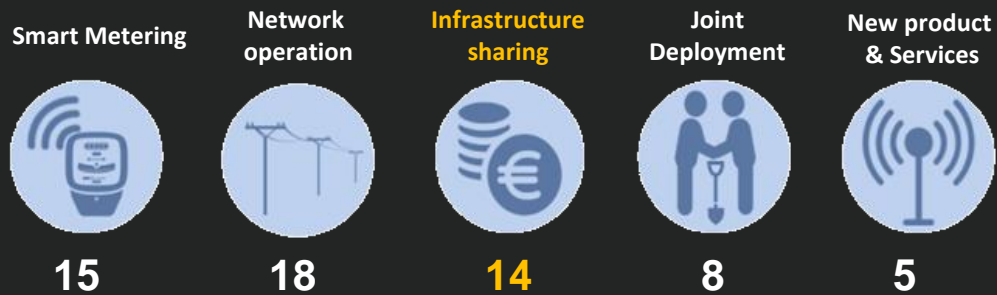
- Hard to obtain ROW
- Excavation costs are high
- Can't share legacy pipes

Indoor deployment pain points

- Hard to obtain wayleave(Indoor ROW)
- Hard for users to accept
- Onsite service requires consent of management committees and tenants

EU promotes and tells the trend of synergies Utility - Telcos

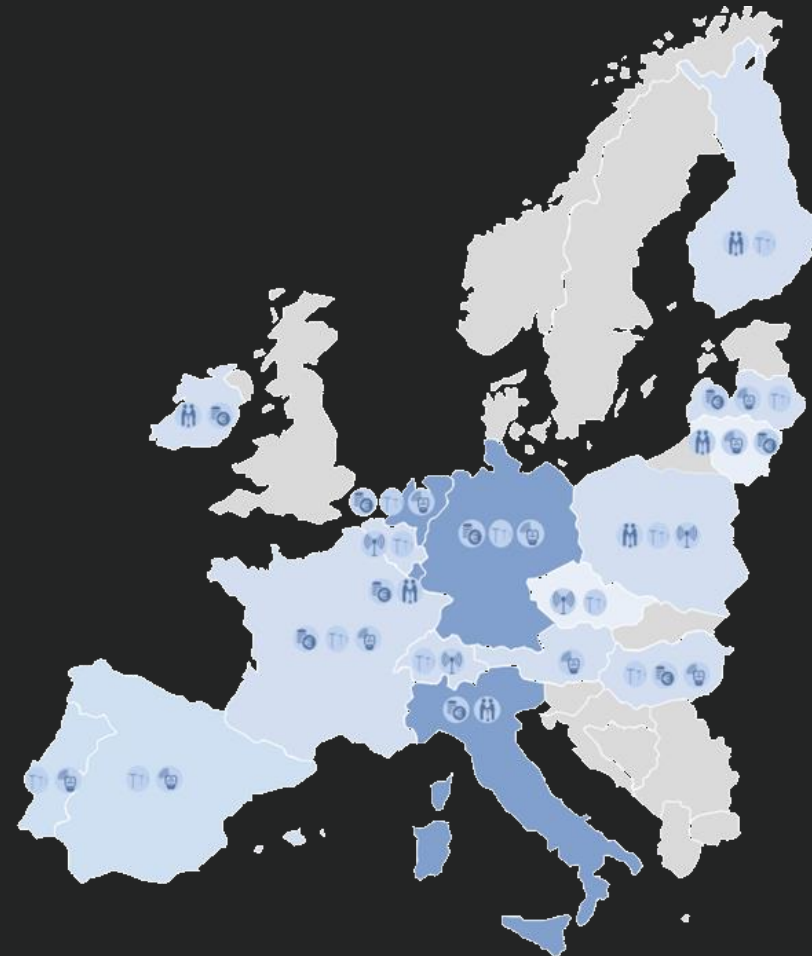
58 projects of synergy in 17 member states



“symbiosis” of smart grid and ultra-broadband realization

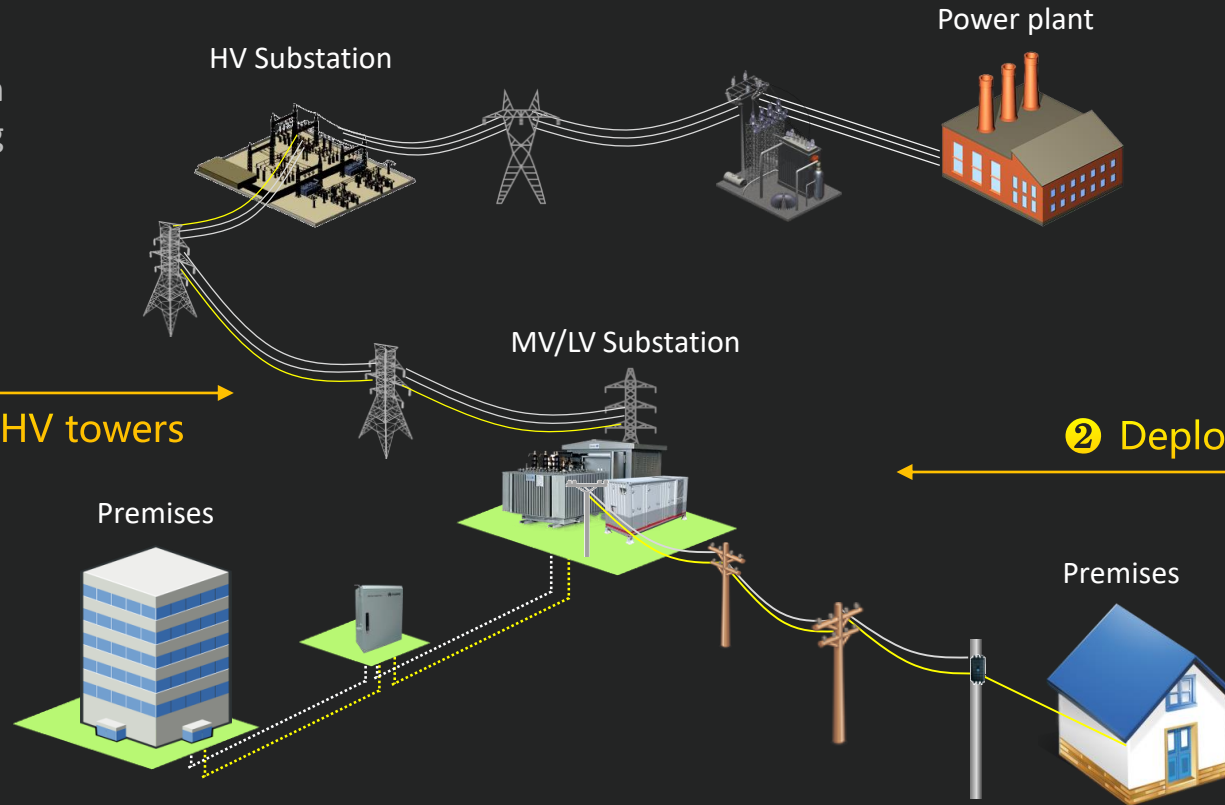
- DSO and Telco company
- DSO or Telco company
- No data

DSO: (Power) Distribution System Operator



Reusing existing infrastructure would save up costs and shorten TTM

- Apply WDM technology can free dark fibre from existing fibre transmission network
- New build fibre can either enlarge bandwidth or pave the way to do Smart Grid



- CO cabinet is isolated at substation for safety and security control
- Cabinet can be deployed and reallocated easily

1 Transmission line along HV towers

2 Deploy CO cabinet at Substation

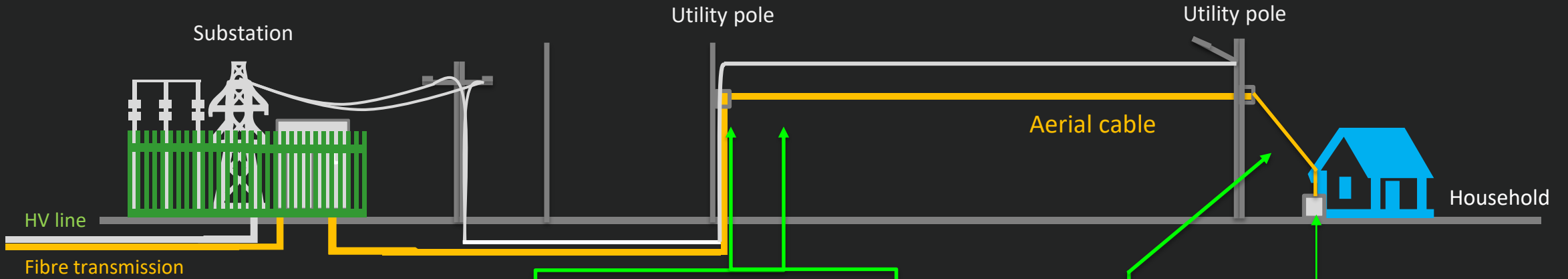
- Using existing utility ducts can either save up deploy costs, shorten work time, or minimize the disruption.

- Using existing utility poles is the most efficient way to lay the fibre and very easy to maintain in the future.

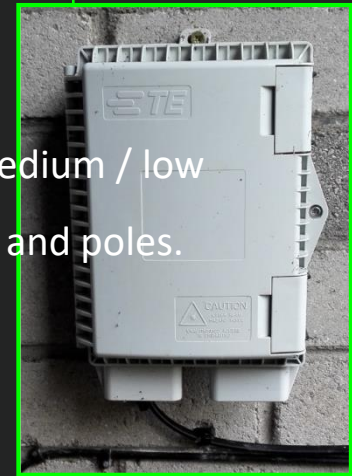
4 Underground cabling along utility ducts

3 Aerial cabling along utility poles

Pole sharing for aerial cabling makes fiber rollout more efficient



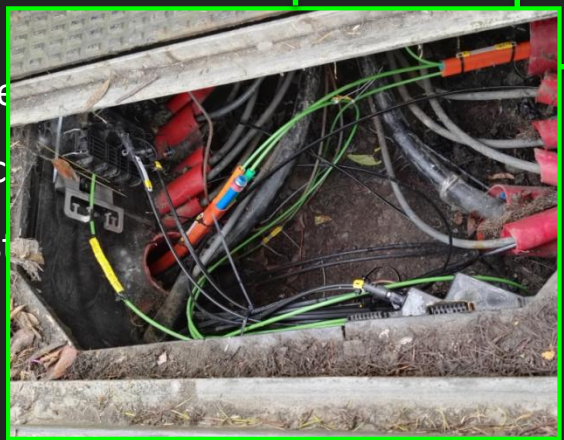
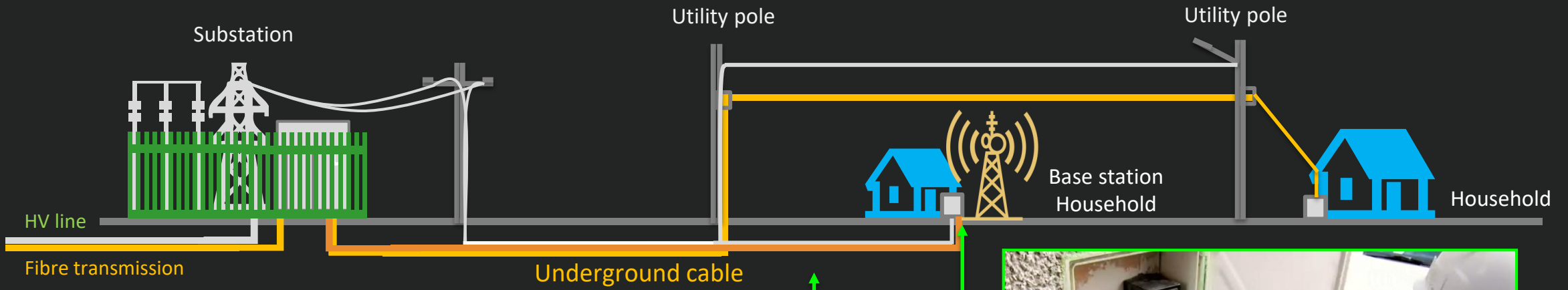
Home passed feeder laid along distribution lines and terminated at fixed cabinets on the utility pole



Home passed feeder laid along distribution lines and terminated at fixed cabinets on the utility pole

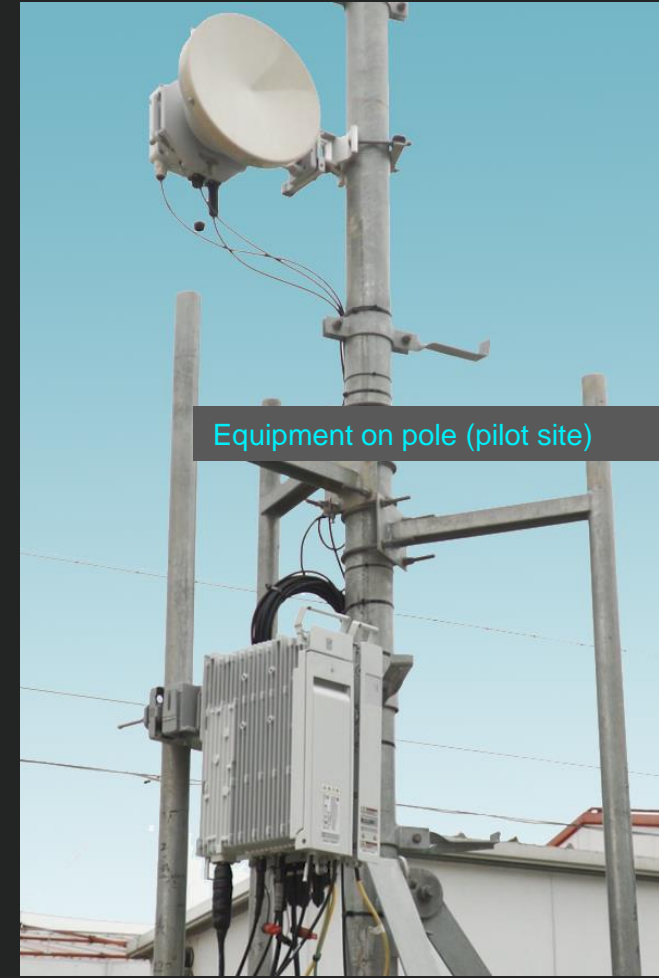
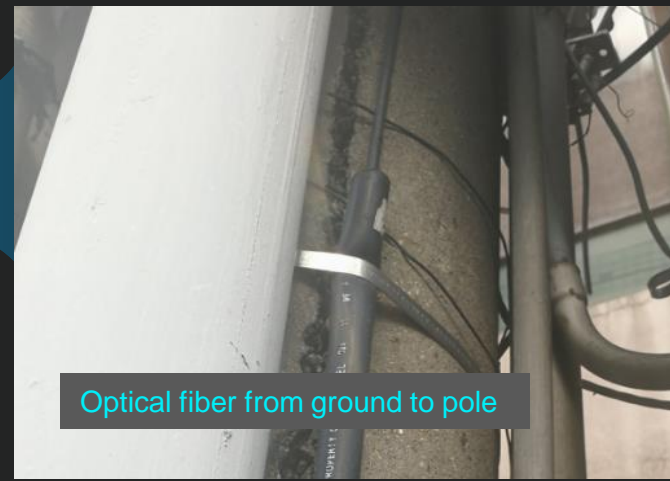
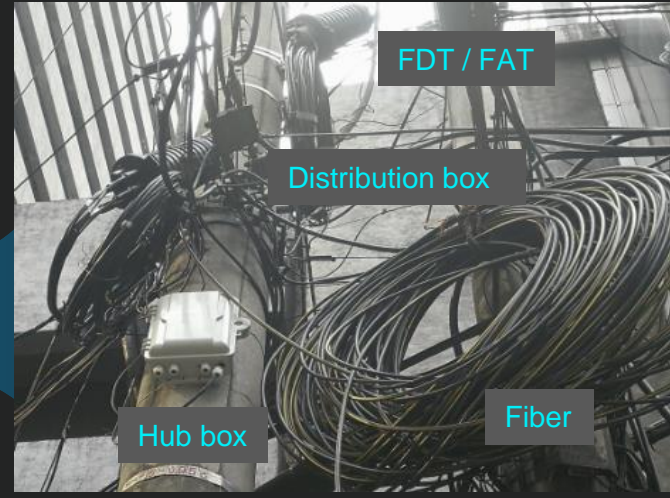
Terminal box

Duct sharing enables the possibility to shorten Time-to-Market



Home passed feeder cable can lay along existing ducts, to minimize the excavation

Philippine: Government released “joint pole agreement”



Innovative and mature solutions enable the possibility of synergy

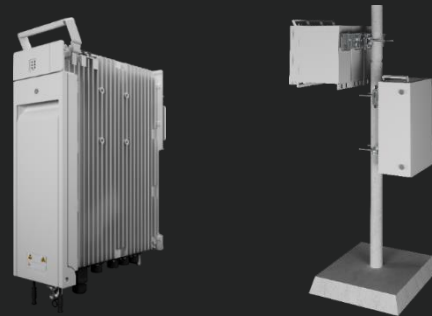
Mobile backhaul solution

Tiny box to support backhaul, 2B line and FTTH



Attach to pole solution

Best OLT solution for outdoor pole/mast installation

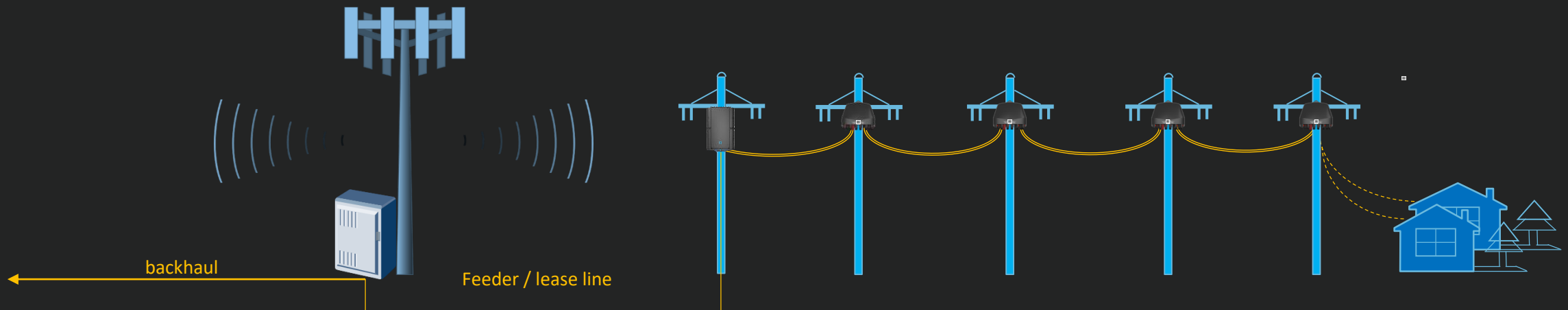


Fiber rollout solution

Best solution for both aerial and underground cabling



Insert the Cable and Rotate 45° to Get Lock , Plug and Play



THANK YOU



HUAWEI