

The opportunity

Transport and ICT are about connecting people and businesses to each other, to public and financial services, and to economic opportunities.

We can define a *common future* for both sectors—unleashing *synergies* and unlocking significant *benefits*—connecting more people to opportunity!

Linear network infrastructures

(transport, energy, municipal)

Smart systems

Systems that improve reliability, quality, and sustainability of infrastructure





Infrastructure Sharing

Leveraging elements (optical fiber, towers, ducts, poles, rights-of-way) that help expand telecommunications networks faster and at lower cost

ICT applications and services

(advanced IT services)

Telecommunications connectivity

(expanded connectivity)



Data exchange

Improved telecommunications connectivity permits data exchange and IT services, supporting and increasing trade

Where is the opportunity?

	Utility has existing infrastructure that telcos can use (by default)	Utility can develop infrastructure that telcos can use (<i>by design</i>)
Railways	Railways have optical fiber cable networks—used for signaling—can be used for telecom (e.g. RailTel India; Georgia RT; Poland RT; Adif Spain; Morocco) Some lease out ducts (Tunisia SNCFT)	Railways have ROW that can be made available (common); can develop ducts/fiber
Roadways	Some lease out ducts (e.g. Georgia; Poland; Lithuania) As ITS becomes more popular, administrators are deploying OFC that can be used by telcos (e.g. MSRDC India, France)	Roadway ROW is the usual deployment pathway for telcos (very common); can develop ducts/fiber (e.g. Vermont)

Why do this?

Utility perspective

Telecom perspective

Benefits

- Additional revenues, at relatively low cost
- Uses excess capacity on existing fiber, utilizes underused assets (e.g. ROW)
- Dig once, use multiple times—less social and environmental impact
- Potential to use improved connectivity for smart systems
- Possible to spin off/privatize the business

- Significant cost savings—between 50 and 80%
- Increases ability to reach rural and remote regions
- Improves redundancy
- Can support and promote competition in the market
- Reduces time-to-market, due to access to passive infrastructure, simpler (or no) ROW/site acquisition processes

Risks

- Could burden the institutional capacity of the utility
- Joint deployment timing
- Demand assessment gaps
- Regulatory considerations

- Lack of information on availability of infrastructure
- No clear rules on process, pricing, contracting
- Timing and regulatory concerns

How to do this?

Policy and regulation

- Open up telecommunications markets—allow utilities to enter (at least some segments) of the telecommunications business
- Set clear utility regulation, including cost apportioning, rate base calculations or tariff for access
- Set up an institutional coordinator/issue a relevant policy

Information and process

- Create maps of infrastructure, provide access to information on infrastructure presence and use to any licensed operator
- Share information on planning of new infrastructure, enable joint deployment
- Create standardized mechanisms of requesting and pricing access

Dispute settlement

Have a clear dispute settlement process, identifying which regulators/agencies are involved—maybe setup a coordinator

Standards and SOPs

- Develop standards for new infrastructure to include ducts/fiber optic
- Develop SOPs for updating infrastructure to include sharable elements
- Create SOPs for physical access, maintenance, and operation



