

# Telecommunications / Information & Communication Technology PPPs

## Full Description

Innovations in Information and Communication Technology (“ICT”) and telecommunications have been a key driver of modern-day economic growth, enabling near-instant communication, transforming the economy (e.g. through the rise of the digital economy and e-commerce) and creating new opportunities in all industries and sectors. Consequently, the ICT and telecommunications sector has become an area of priority for many governments, from developing a regulatory environment that supports a thriving digital economy and ensures the availability of the infrastructure that underpin the delivery of telecommunication services, to tackling the emerging and increasingly critical issues of data protection and privacy. For more information on digital technologies and the development of a digital economy, visit the [World Bank’s Digital Development page](#). Also of relevance to this area are data protection regulations emerging around the world. See for example, the [online database](#) hosted by the European Commission.

## **Telecommunications infrastructure public-private partnerships (PPPs)**

Telecommunications infrastructure consists of a broad range of technologies, from broadband and fixed-line networks to mobile connectivity and satellites. Historically, such infrastructure has been state-owned and operated, given its strategic importance. However, a rise in market demand and the pace of innovation in underlying telecommunications technologies have had implications for government ownership, including a trend towards deregulation, privatization and liberalization of telecommunications infrastructure and markets. In many jurisdictions, these factors have resulted in a competitive and dynamic market where multiple private sector participants operate alongside the former state monopoly (which may have been partially or fully privatized).

At the same time, while private sector construction, ownership and operation of telecommunications assets has become increasingly common around the world, telecommunications projects still require significant upfront and ongoing capital investment, with the risk that the network quickly becomes outdated or is overtaken by new technologies. State investment in telecommunications infrastructure addresses the challenges of the economic viability of private sector investment in the entire cost of constructing and operating new telecommunications infrastructure and provides governments with a degree of control over infrastructure deployment (including technology mix, geography, and timeframes). In some cases, state investment also provides government with ultimate ownership over the asset. Telecommunications PPPs enable governments to financially contribute to the development of key telecommunications infrastructure while leveraging private sector capital, technology and expertise.

In markets where telecommunications infrastructures are ultimately owned and operated by private sector participants, ICT PPPs usually take the form of a government subsidy to the capital cost of construction. However, the nature and requirements of the PPP may differ depending on the maturity of the market and the history of private sector participation. In economies with limited historical private sector participation and higher levels of state-led development, PPP requirements can be expected to be more prescriptive, e.g. with the government specifying technology and delivery requirements, while in economies with a more mature and experienced private sector, PPP requirements can be expected to be more outcome-focused, relying on the private sector to plan, design and manage the rollout of telecommunications infrastructure.

This section explores some common regulatory features of the telecommunications sector and provides an overview of sample telecommunications PPPs across a range of different jurisdictions, highlighting the varying PPP structures used in markets at different stages of development. Navigate the following

subsections for more information, sample laws, licenses and agreements.

- [General Telecommunication frameworks \(by country\)](#)
- [Licensing \(by country\)](#)
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- [Telecommunications Competition Policy](#)
- [Case Studies on PPP Arrangements for Telecommunications](#)
- [Investment in ICT with private participation](#)
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## Further Reading

- [Measuring the Emissions and Energy Footprint of the ICT Sector: Implications for Climate Action](#) - The report uses the Greenhouse Gas Protocol Corporate Standard to categorize energy use and emissions, and addresses policy and regulatory implications through several country case studies, 2024.
- [Digital Innovation for Smarter Climate Action](#) - The Report showcases good practices and country examples of digital applications in addressing climate change, in terms of mitigation and adaptation, 2024.
- [PPP Risk Allocation Tool \(2019\)](#) - provides a useful reference source which outlines common risks arising in different types of PPPs and different market approaches to the allocation of such risks.
- [BroadbandUSA: An introduction to effective public-private partnerships for broadband investments](#) - BroadbandUSA, National Telecommunications and Information Administration (NTIA), United States Department of Commerce, January 2015.
- [Myanmar: Telecommunications Reform](#) - showcases how the World Bank Group supports the development and implementation of public-private partnerships in Myanmar's telecommunication sector.
- [Liberalizing Telecom Sector in Myanmar](#) - by Tenzin Norbhu, World Bank, 2015
- [Land Access for Telecommunications](#) - this document addresses four policy problems related to the overall access rights framework to install and maintain telecommunications.
- [Connectivity](#) - Handshake, International Finance Corporation's (IFC's) quarterly journal on public-private partnerships (PPPs), Issue #15, October 2014.

- [A Framework to Approach Shared Use of Mining-Related Infrastructure](#) - by Perrine Toledano, Sophie Thomashausen, Nicolas Maennling, and Alpa Shah, Vale Columbia Center on Sustainable International Investment, Columbia University, 2014. The publication presents an economically, legally and operationally rational framework to enable shared use of mining-related infrastructure, including rail, ports, power, water, and internet and telecommunications(ICT).
- [Developing successful Public-Private Partnerships to foster investment in universal broadband networks](#) - International Telecommunication Union (ITU), the United Nations specialized agency for information and communication technologies, September 2012.
- [Broadband – Delivering Next Generation Access through PPP](#) - European PPP Expertise Centre (EPEC) 2012.
- [Telecommunications Regulation Handbook](#), edited by Colin Blackman and Lara Srivastava, 2011.
- [A Model for Calculating Interconnection Costs in Telecoms, Public-Private Infrastructure Advisory Facility \(PPIAF\) 2004](#) - This guidebook provides a sound methodology to help regulators and telecommunications operators adopt a tariff regime and deal with interconnection disputes on the basis of a rigorous cost model.
- [Public-Private Partnerships \(PPPs\) in e-Government: Knowledge Map Information for Development Program \(InfoDev\) June 2009](#) - This publication is designed to provide policy makers, development agency staff, private sector partners, and other key practitioners with guidance on the policies, programs, services, and instruments that may facilitate the engagement of the private sector into areas traditionally seen as those solely of government.
- [Next Generation Connectivity - A review of broadband Internet transitions and policy from around the world February 2010](#) - An independent expert review conducted by the Berkman Center for Internet & Society at Harvard University for the benefit of the Federal Communications Commission (FCC).
- [Report on Next Generation Access - Economic Analysis and Regulatory Principles \(June 2009\)](#) - Produced by the European Regulators Group (ERG), this report discussed current regulatory developments in the European Union addressed to the economic and technical challenges and various PPP practice at the local level to build out fiber infrastructure in collaboration with local communities.
- [The Economics of Next Generation Access—Final Report September 2008](#) - In this study for the European Competitive Telecommunications Association (ECTA), public private partnerships are presented as an effective vehicle for achieving “open access” to multiple competitors.
- [Implementing Electronic Business Registry \(e-BR\) Services](#) - Recommendations for policy makers based on the experience of EU Accession Countries, by Lewin, Anat, Leora Klapper, Bruno Lanvin, David Satola, Sophie Sirtaine, Richard Symonds, and Cara Zappala, June 2008.

- [Sources of Performance Improvements in Privatized Firms: A Clinical Study of the Global Telecommunications Industry, April 2001](#) - This paper examines the financial and operating performance of 31 national telecommunication companies in 25 countries that were fully or partially privatized through public share offering between 1981 and 1998.
- [The Impact of Privatization and Competition in the Telecommunications Sector around the World, October 2002](#) - this study shows that half of the output growth between 1990 and 1998 was attributable to privatization and competition after controlling for input growth. Competition appeared to have a larger impact on labor and total factor productivity than privatization.
- [ICT Toolkit Legal and Institutional Framework](#) - resources on various regulatory approaches for regulators, policymakers, and practitioners within the current ICT environment.
- [Public-Private Partnership in Telecommunications Infrastructure Projects](#) - Case of the Republic of Congo.
- [Telecommunications Legislation in Transitional and Developing Economies](#) - This report examines the design of telecommunications legislation in countries with transitional and developing economies engaged in liberalizing and privatizing their telecommunications sectors

## General Material

- WTO
  - [WTO Telecommunication Services](#)
  - [WTO Reference Paper](#)
- [European Union Directives on electronic communications](#)
- Regional Organizations: -
  - [ECOWAS](#): Economic Community Of West African States.
  - [REGULATEL](#) Foro Latinoamericano de Entes Reguladores de Telecomunicaciones
  - [ECTEL](#) The Eastern Caribbean Telecommunications Authority was established by the Governments of five Eastern Caribbean states (Commonwealth of Dominica, Grenada, Saint Christopher and Nevis, Saint Lucia, Saint Vincent and The Grenadines) to promote market liberalization and competition in telecommunications of the contracting states.
  - [ITU](#) (International Telecommunication Union) is the United Nations specialized agency for information and communication technologies – ICTs.
  - [COMUNIDAD ANDINA](#) - Bolivia, Colombia, Ecuador and Peru
- International Associations
  - [Independent Regulators Group \(Europe\)](#)
  - [Organization for Economic Co-operation and Development: \(OECD\)](#)

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