



REPÚBLICA DE CABO VERDE

MINISTÉRIO DAS FINANÇAS

Terms of Reference (ToR)

Consultancy on Infrastructure Sharing Regulation – ARME

1. Background and Context

The Republic of Cabo Verde, through the Ministry of Finance and the Special Projects Management Unit (UGPE), is implementing the *Digital Cabo Verde Project – Additional Financing* (IDA Credit No. 7797-CV), financed by the World Bank's International Development Association (IDA). The Additional Financing aims to strengthen Cabo Verde's digital competitiveness foundations and improve the provision and usage of digital public services.

The *Digital Cabo Verde Project – Additional Financing* is structured around three main components:

- **Component 1: Enabling Legal and Regulatory Environment** – supporting ARME and other relevant institutions to modernize the regulatory framework for the telecommunications and digital sectors, including the development of infrastructure sharing regulation and cybersecurity frameworks.
- **Component 2: Digital Competitiveness** – strengthening human capital, fostering digital skills, and supporting innovation and entrepreneurship to improve competitiveness and inclusion in the digital economy.
- **Component 3: Digital Public Services and Marketplace** – enhancing digital public services delivery, interoperability, and the adoption of shared digital platforms to improve governance and citizen engagement.

This consultancy falls under **Component 1.1 – Foundational and Forward-Looking ICT Policies and Regulations**, implemented by UGPE and executed by ARME. It aims to strengthen ARME's regulatory capacity through the preparation of a comprehensive **Infrastructure Sharing Regulation** aligned with national legislation and international best practices.



ARME, in coordination with UGPE, will oversee the implementation of this consultancy. The assignment will contribute to improving market efficiency, promoting fair competition, and ensuring optimal use of telecommunication infrastructure in Cabo Verde.

2. Regulation Context

Infrastructure sharing has become increasingly relevant in the context of electronic communications, driven by the development of next-generation networks, continuous technological evolution, and rising infrastructure investment costs. This calls for more efficient, sustainable, and collaborative solutions among the various sector stakeholders.

The transition to a robust and inclusive digital economy requires efficient access to physical infrastructure, making it essential to establish a clear, coherent, and sustainable regulatory framework. Such a framework should address not only technical and economic aspects but also environmental, health, and public safety considerations, ensuring a balanced and public-interest-oriented approach.

In Cabo Verde's small and geographically dispersed market, promoting infrastructure sharing is particularly critical. Rationalizing the use of existing infrastructure and coordinating new deployments will help avoid duplication of investments, reduce environmental impacts, and ensure sustainable sector development.

The legal framework, established by Legislative Decree No. 7/2005 of 28 November, as amended by Legislative Decree No. 2/2021 of 20 April and Decree-Law No. 12/2022 of 13 April, provides that operators must promote infrastructure-sharing agreements, which are to be communicated to the

National Regulatory Authority (ARME). However, persistent challenges remain, including limited cooperation among operators and unclear rules for use of public domain infrastructure.

To address these gaps, ARME will lead this consultancy to develop a specific and binding legal instrument-governing infrastructure sharing in Cabo Verde, consistent with international best practices and adapted to national conditions.

3. Objectives

The objective of this consultancy is to prepare a new legal and regulatory framework for infrastructure sharing in Cabo Verde, including a full diagnostic of the current situation,



benchmarking against international practices, and detailed recommendations for implementation.

Specific objectives include:

- Assess the current legal and regulatory framework related to infrastructure sharing in Cabo Verde.
- Identify market barriers and inefficiencies that hinder shared infrastructure development.
- Benchmark global and regional best practices on infrastructure sharing models and regulatory instruments.
- Propose a comprehensive regulatory framework for infrastructure sharing, including legal provisions, governance mechanisms, and enforcement tools.
- Design an implementation roadmap, including institutional responsibilities, capacity needs, and stakeholder consultation strategy.

4. Scope of Work

The consulting firm will perform the following main tasks:

4.1. Legal and Institutional Analysis

- Review, identify, compile, and analyze the current regulations and legal frameworks applicable to infrastructure sharing, including telecommunications, energy, transport, and construction sectors.
- Identify legal gaps, overlaps, and inconsistencies that may hinder effective implementation.

4.2. Technical Diagnosis

- Conduct a technical and institutional survey of infrastructure suitable for sharing (towers, ducts, poles, fiber networks, etc.).
- Assess ownership, accessibility, and interoperability of existing infrastructure sharing and addressing the identified challenges.



- Assess the scope of current sharing arrangements including the geographic scope, degree (passive¹/active²/core/spectrum), time frame, technology (2G, 3G, 4G), agreement type (JV, lease, IRU), and commercial/regulatory drivers.
- Perform stakeholder consultations, as needed, with industry players (Alou, Unitel T+, others), non-telecom utility operators, consumer groups, and local authorities.
- Analysis of the role of 5G in shaping requirements/regulatory frameworks in Cabo Verde.

4.3. International Benchmarking

- Review and compare best practices on legal framework and regulations for infrastructure sharing from countries with similar geographic and institutional contexts (archipelagic or small states), including information-sharing requirements, National Regulatory Authorities powers, infrastructure sharing obligations and any guidelines in place to support operators.
- The list of countries to be considered for benchmarking must be previously approved by ARME.
- Extract applicable lessons and propose adaptations for Cabo Verde, including potential cost-saving benefits and the associated acceleration of coverage for areas where the coverage costs for a single operator deployment are high (often rural areas).

4.4. Drafting of the Regulatory Proposal

- Develop a regulatory framework addressing legal, institutional, and technical challenges, including but not limited to the following elements:
 - **Definition of Infrastructure Sharing:** Define the types of sharing to be covered:
 - **Passive Sharing:** Ducts, poles, towers, rights of way, co-location.
 - **Active Sharing:** RAN sharing, spectrum sharing, core network sharing - often treated separately or with stricter competition scrutiny.

¹ Passive sharing is defined as sharing of the passive elements of network infrastructure (mast, sites, cabinet, power).

² Active sharing is defined as the sharing of active elements in the radio access network (e.g. antenna, radio network controller).



- **Cross-Sectoral Sharing:** Explicitly include infrastructure owned by non-telecom utilities (e.g., power, gas, water, transport/railways, and public lighting).
 - **Scope of Obligation:** Define who is obliged to share (Infrastructure Providers) and who has the right to request access (Infrastructure Seekers). Specify obligations for:
 - Publicly Owned Infrastructure.
 - Operators with Significant Market Power (SMP).
 - **Access Conditions:** Outline the principles that must govern access:
 - Fair, Reasonable, and Non-Discriminatory (FRAND) Terms.
 - Pricing Principles.
 - Process and Timelines: Establish mandatory deadlines for responding to requests for information and access requests.
- Prepare a draft legal instrument that sets out enforceable rules for access and sharing of infrastructure, including a regulatory and enforcement framework, with elements such as, but not limited to:
 - **Dispute Resolution:** Define the process for resolving disagreements between parties.
 - **Information Sharing:** Define an obligation for infrastructure owners to provide geographic information about their passive infrastructure (e.g., GIS data) to ARME or a central body to facilitate requests.
 - **Sanctions and Penalties:** Outline the enforcement powers and penalties for non-compliance with the sharing obligations or timelines.

4.5. Validation and Implementation

- Present and justify the draft regulation (or amendments to existing laws), including its legal foundations and expected impacts.
- Support ARME during the public consultation process and incorporate relevant contributions.
- Propose an implementation roadmap with monitoring mechanisms and performance indicators.

4.6. Implementation and Recommendations

- • Develop an implementation roadmap and a capacity-building plan for ARME, **including a communication and public relations strategy to ensure stakeholder engagement and awareness of the new regulatory framework.**
 - Provide recommendations to ensure sustainability, periodic review, and continuous improvement of the regulatory framework.



5. Deliverables and Payment Schedule

D1 – Legal and Institutional Report

- Presents a complete and up-to-date analysis of the national and sectoral legal framework.
- Clearly identifies gaps, inconsistencies, and opportunities for harmonization.
- Includes legal references and technical justifications.

D2 – Technical Infrastructure Report

- Contains a detailed inventory of infrastructure suitable for sharing.
- Identifies owners and managers based on verifiable data.
- Presents validated and applicable data collection instruments.
- Technical assessment includes criteria for accessibility, interoperability, and coverage.

D3 – Challenges and Stakeholder Consultation Report

- Reflects contributions from all relevant stakeholders.
- Presents a structured analysis of legal, technical, and operational constraints.
- Includes a clear methodology for data collection and processing.

D4 – International Benchmarking Study

- Compares at least three countries with characteristics similar to Cabo Verde.
- Presents a critical analysis of legal and institutional models.
- Includes contextualized and justified recommendations for Cabo Verde.

D5 – Draft Legal Instrument

- Clearly written, technically and legally substantiated.
- Aligned with the national legal framework and international best practices.
- Includes regulatory impact assessment (economic, social, competitive).

D6 – Public Consultation Documentation

- Base document is accessible, clear, and technically substantiated.
- Consultation report summarizes contributions and provides justification for acceptance or rejection.
- Final version of the legal instrument incorporates relevant contributions.



- D7 – Implementation Plan
 - Defines actions, responsibilities, timelines, and monitoring indicators.
 - Includes proposals for complementary regulations, if necessary.
 - Presents mechanisms for monitoring and periodic review.

- D8 – Final Consolidated Report
 - Summarizes key results and recommendations.
 - Includes all technical documents as annexes.
 - Structured, clear presentation ready for institutional review.

Deliverable	Description	Timeline	Payment (%)after approval
D1	Legal and Institutional Report	Contract Signing (CS)+ 3 weeks	15%
D2	Technical Infrastructure Report	(CS)+11 weeks	15%
D3	Challenges and Stakeholder Consultation Report	(CS)+15 weeks	25%
D4	International Benchmarking Study	(CS)+19 weeks	
D5	Draft Legal Instrument	(CS)+37 weeks	25%
D6	Public Consultation Documentation	(CS)+41 weeks	
D7	Implementation Plan	(CS)+43 weeks	20%
D8	Final Consolidated Report	(CS)+45 weeks	

Payments will be made **upon the approval of each** deliverable by the ARME and the UGPE.

- **Review Process :**
 - All deliverables will be subject to technical review by ARME (or consultants designated by ARME);
 - Review period: 15 working days after submission (unless otherwise indicated);
 - ARME may: Accept the deliverable; Request corrections or additions



(resubmission deadline: 10 working days); or Reject the deliverable (the provider will be given another opportunity to resubmit).

6. Qualifications and team composition

6.1. Consulting firm Requirements

- Legally established with a minimum of 10 years of experience in ICT and telecommunications regulation.
- Proven experience in regulatory studies and drafting of legislative instruments for infrastructure sharing.
- At least three infrastructure-sharing regulation projects completed in the last seven years, with at least one valued at \geq USD 500,000.
- Prior experience in EU and Sub-Saharan Africa, preferably in Small Island or developing states.
- Demonstrated financial capacity (average annual turnover \geq USD 1 million in the last three years).
- Regularized tax and social security status.

6.2. Team Composition (3 key experts)

Team Leader:

- **Academic Background:**
 - **Mandatory:** Master's degree in Law (preferably with specialization in Telecommunications Law or Regulation).
 - **Optional:** Additional training in Telecommunications/ICT Engineering will be considered an advantage but does not replace the legal requirement.
- **Professional Experience:**
 - At least 10 years of experience in telecom regulation, with a minimum of 5 years dedicated to regulatory matters within the electronic communications sector.
 - Proven experience in drafting legal and technical documentation (opinions, regulations, contracts) and acting as a legal advisor in similar projects.
- **Relevant Projects:**
 - At least three projects similar to the scope of this assignment, including legal advisory and regulatory documentation drafting, carried out in



markets within the European Union, ECOWAS region, and Sub-Saharan Africa.

- Other Requirements:
- Demonstrated experience working with public stakeholders (e.g., regulatory authorities).

Proficiency in relevant software tools for project management and documentation.

Technical & Regulatory Specialist

- Academic Background:
 - The Technical & Regulatory Specialist must hold a degree in Telecommunications or ICT Engineering.
- Professional Experience
 - This role requires a minimum of 7 years of professional experience specifically in infrastructure-sharing projects and network management.
 - At least **three consultancy assignments** related to projects similar to the scope of this assignment in electronic communications markets.
- Knowledge and Skills
 - Demonstrated understanding of international standards, including those set by ITU and GSMA.
 - Strong understanding of telecommunications regulatory models and international best practices, including access networks and fiber optic transmission systems.
 - Proven ability to ensure technical integration within regulatory frameworks.
 - Capability to collaborate closely with the legal lead to align both technical and legal requirements.

Other Requirements:

- Proficiency in relevant software tools for this type of project.
- **Working knowledge of Portuguese** will be considered an advantage for effective collaboration with local stakeholders.



Economist & Public Policy Specialist

- **Academic Background**
 - The Economist & Public Policy Specialist must possess a degree in Economics, Management, or Public Policy.
- **Professional Experience**
 - A minimum of 7 years of experience is required in areas such as regulatory impact analysis, cost modeling, and tariff setting.
 - Strong understanding of telecommunications regulatory models and international best practices, including access networks and fiber optic transmission systems.
- **Knowledge and Skills**
 - Experience in conducting public consultations and facilitating workshops.
 - Proficiency in drafting reports.
 - Ability to integrate economic analysis with stakeholder engagement strategies.

At least one team member fluent in both Portuguese and English.

The consultant may seek the assistance of a local legal expert with proven legal experience in the sub-region and project management experience in similar assignments.

Detailed CVs must be submitted with the proposal.

Replacement of key team members requires prior approval from ARME.

7. Duration and Reporting

The consultancy will last **forty-five (45) weeks** from contract signature. The consultant/firm will report to the **President of ARME**, under the supervision of the



Digital Cabo Verde Project Manager (UGPE) and in coordination with the technical team.

8. Compliance with Environmental and Social Requirements

The consultant/firm shall:

- Integrate gender equality, inclusiveness, and accessibility considerations into the proposed framework.
- Ensure stakeholder consultations include representatives of vulnerable and underserved groups.

9. Confidentiality and Intellectual Property

All data, reports, and materials produced under this assignment are the property of the Government of Cabo Verde. The firm shall maintain strict confidentiality and shall not disclose project information without prior written consent from the Government of Cabo Verde, through the competent entities (ARME and UGPE).

10. Approval and Coordination

All deliverables must be submitted in Portuguese for approval.

The final deliverables will be reviewed and validated by **ARME, UGPE**.



Anexo

Lista de Legislação importante :

1. Decreto-legislativo nº 7/2005 , de 28 de Novembro, alterado pelo Decreto-legislativo nº2/2021, de 20 de abril, e pelo Decreto-lei 12/2022, de 13 de abril que estabelece o regime geral aplicável a redes e serviços de comunicações eletrónicas e aos serviços conexos e estabelece as competências da autoridade reguladora neste domínio
https://www.ame.cv/index.php?option=com_jdownloads&task=download.send&id=1411&catid=51&m=0&Itemid=826
2. Lei 58/VIII/2014 que Estabelece o regime aplicável às infraestruturas de rede de comunicação eletrónica, bem como à certificação e avaliação dos correspondentes equipamentos.
https://www.ame.cv/index.php?option=com_jdownloads&task=download.send&id=729&catid=145&m=0&Itemid=826
3. Decreto lei nº 36/2021, de 14 de abril que aprova alterações ao contrato de concessão do serviço publico de telecomunicações na sequência do acordo modificativo assinado entre o Estado de Cabo Verde e a CVtelecom, S.A



https://www.arme.cv/index.php?option=com_jdownloads&task=download.send&id=1411&catid=51&m=0&Itemid=826

4. Decreto-lei 10/2009, de 20 de abril Decreto-Lei nº10/2009 de 20 de Abril, que estabelece o regime aplicável ao licenciamento de redes e estações de radiocomunicações.
https://www.arme.cv/index.php?option=com_jdownloads&task=download.send&id=717&catid=51&m=0&Itemid=826