Introduction to USF and Evaluation and impact of USF projects

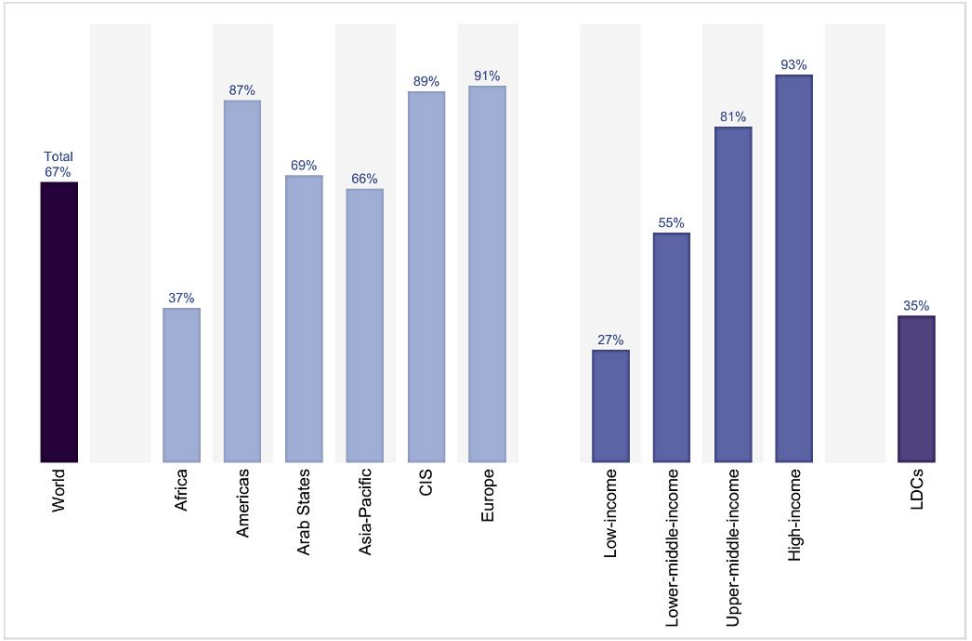
Participants introduction

Introduction to USF

Universal access. Why it matters?

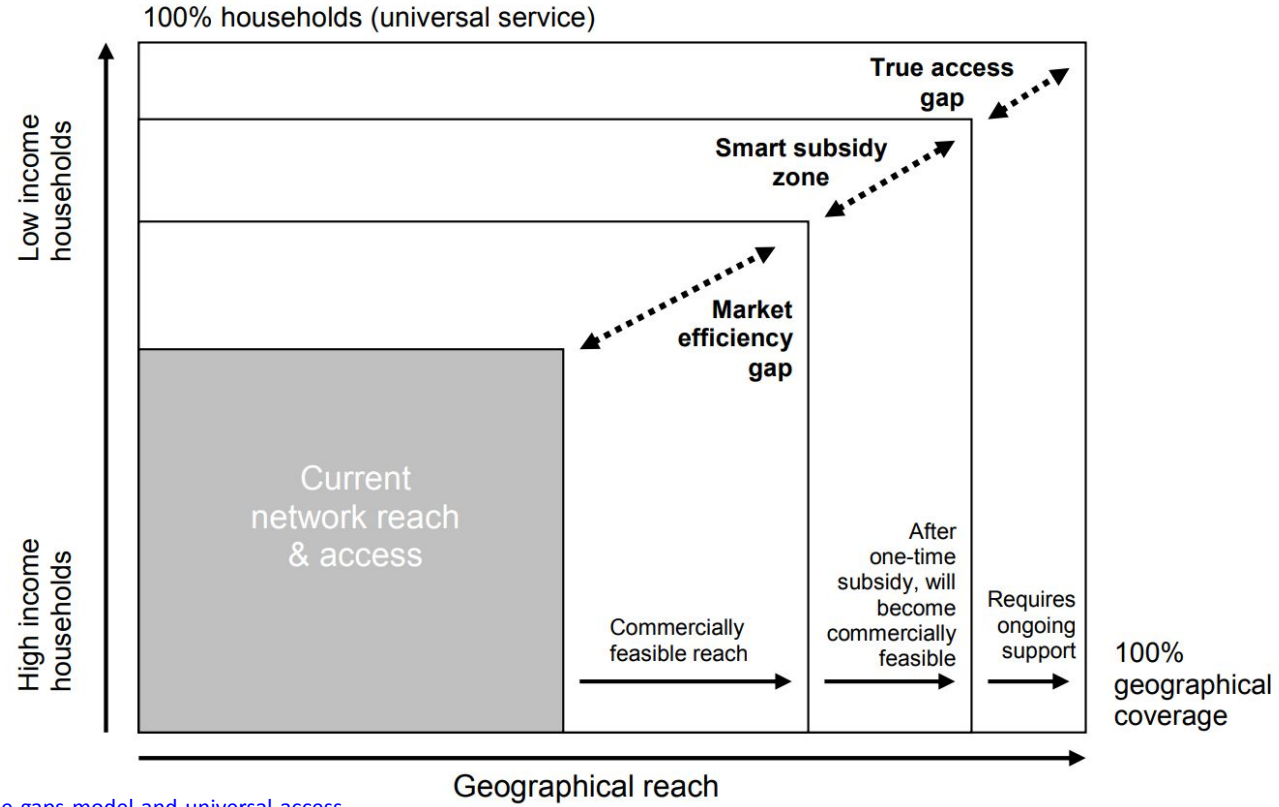
- About **one-third of the global population, or 2.6 billion people, remain offline** in 2023 (compared to 2.7 billion people in 2022)

- Current trends are not strong enough to guarantee that the objective of universal and meaningful connectivity will be met by 2030.



Source: ITU, https://www.itu.int/itu-d/reports/statistics/2023/10/10/ff23-internet-use/

Access Gap Model - 2002



http://blogs.worldbank.org/ic4d/the-gaps-model-and-universal-access

Digital connectivity as the foundational element of the United Nations 2030 Agenda for Sustainable Development.

Universality targets

100%	of population aged 15+ uses the Internet
	of households have Internet access
	of businesses use the Internet
	of schools are connected to the Internet
	of population is covered by a mobile network of the latest technology[1]
	of population aged 15+ owns a mobile phone
>70%	of population aged 15+ has basic digital skills
>50%	of population aged 15+ has intermediate digital skills
Gender parity	is achieved for Internet use, mobile phone ownership and use, and digital skills[2]

Technology targets

100%	of fixed-broadband subscriptions are 10 Mb/s or faster[3]
20 Mb/s	Minimum download speed at every school
50 kb/s	Minimum download speed available per student[4]
200 GB	Minimum data allowance for every school

Affordability targets

2%	Entry-level broadband subscription costs less than 2% of gross national income per capita
	Entry-level broadband subscription costs less than 2% of average income of the bottom 40% of population

Cost of exclusion is higher than the cost of closing the infrastructure, affordability, gender and other gaps that persist as the world becomes increasingly digitalized.

A major barrier to closing the digital divide is funding, or lack thereof. This relates to funding of networks, adoption, inclusion and innovation.

https://www.itu.int/itu-d/reports/regulatory-market/usf-financial-efficiency-toolkit/

Intervention and Funding Areas

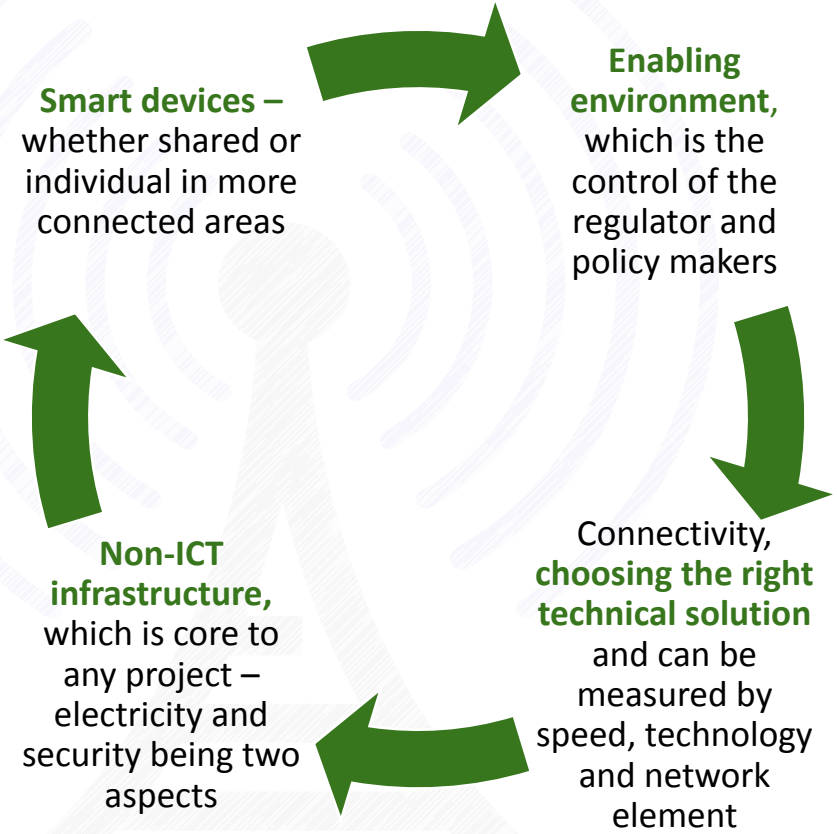
Public Funding

Deciding if public investment is required

- ☑ Will the funding make a material difference or impact that would not have been achieved without the funding being made available?
- ☑ Will public investment stimulate further investment by the private sector? If not, then it risks ‘crowding out’ investment and should not be introduced.
- ☑ Have all alternative funding and financing sources and types been considered?
- ☑ Have costs and benefits of public intervention been assessed?
- ☑ Have transparent and non-market distorting policy and regulatory incentives been put in place to reduce the costs of investment and any perceived investment risks to facilitate private investment?

Intervention and Funding Areas

Connectivity

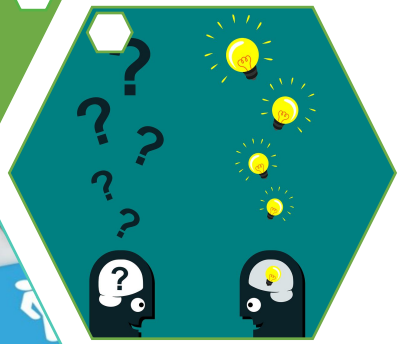


Intervention and Funding Areas

Adoption

Digital literacy, skill development and relevant content development

Digital inclusion support



Support for businesses, SMEs, start-ups and micro-level entrepreneurs, digital and non-tech industries

Individual and strategic public institution support

Intervention and Funding Areas

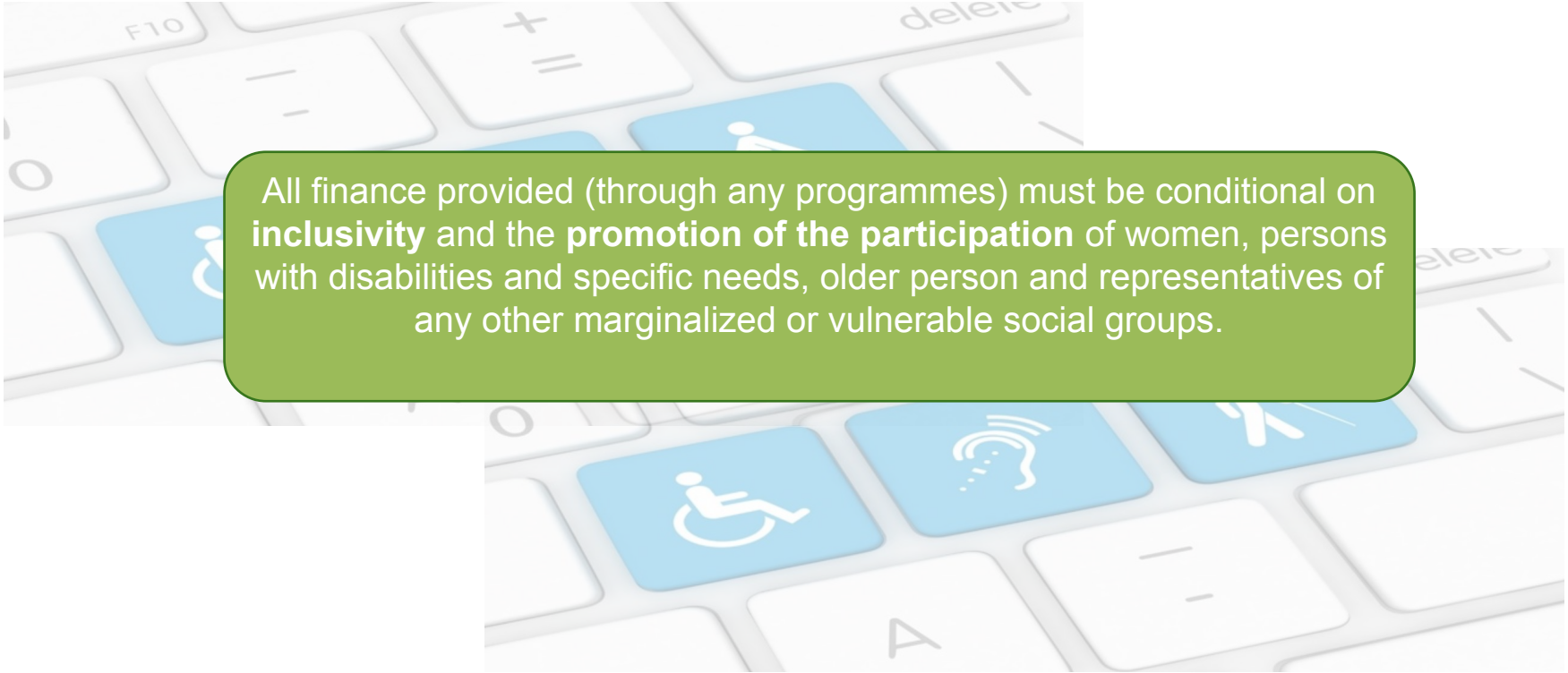
Innovation

Investment in research and development (R&D) and SMEs. Funding for:

- Relatively high-risk, untested innovative business with significant contribution that they make to economies.
- New technologies such as drones, Internet of Things (IoT), machine to machine (M2M) technologies, artificial intelligence (AI) and augmented and virtual reality (AR/VR)
- Start-ups to get them into the mainstream.
- Untested projects and innovations that are likely to be key in fast tracking SDG target attainment in locally relevant ways.

Intervention and Funding Areas

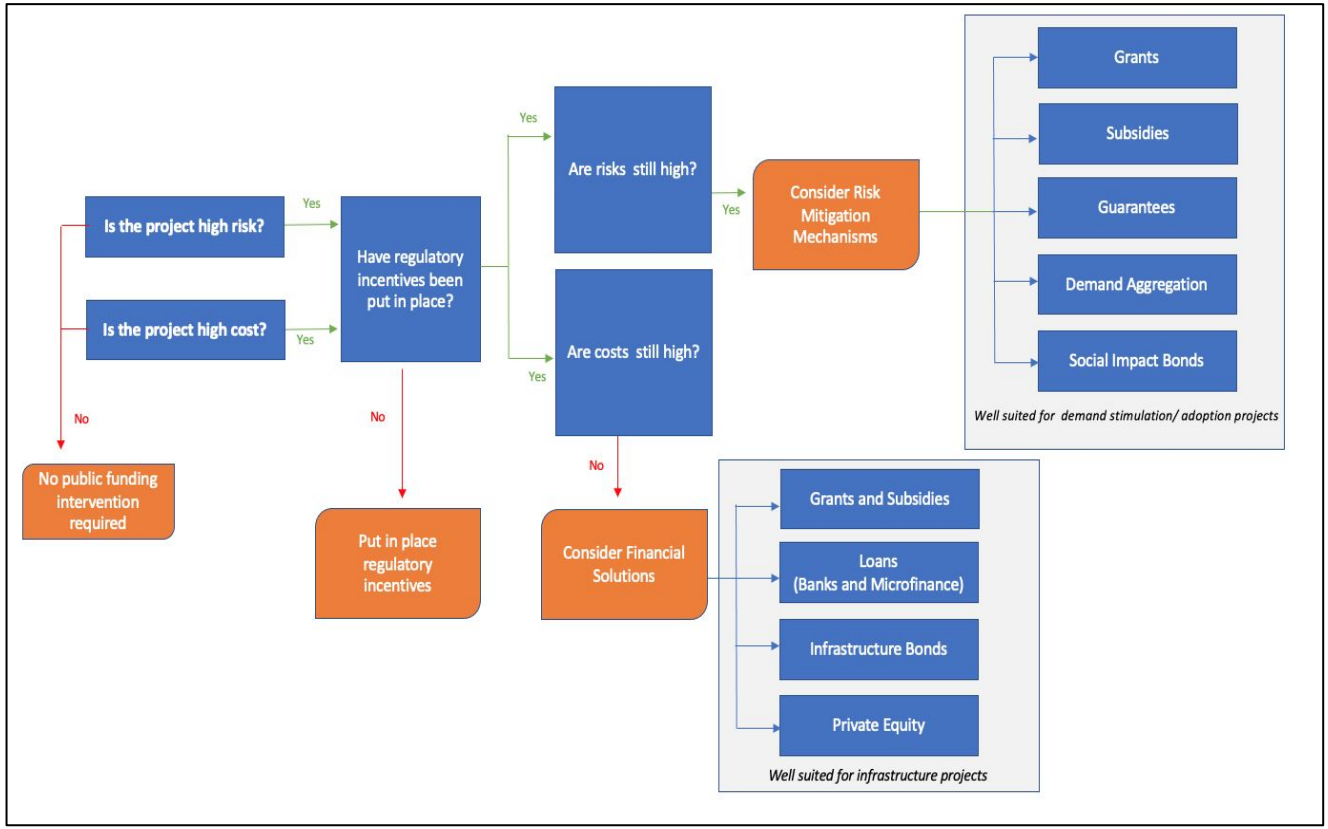
Inclusion



All finance provided (through any programmes) must be conditional on **inclusivity** and the **promotion of the participation** of women, persons with disabilities and specific needs, older person and representatives of any other marginalized or vulnerable social groups.

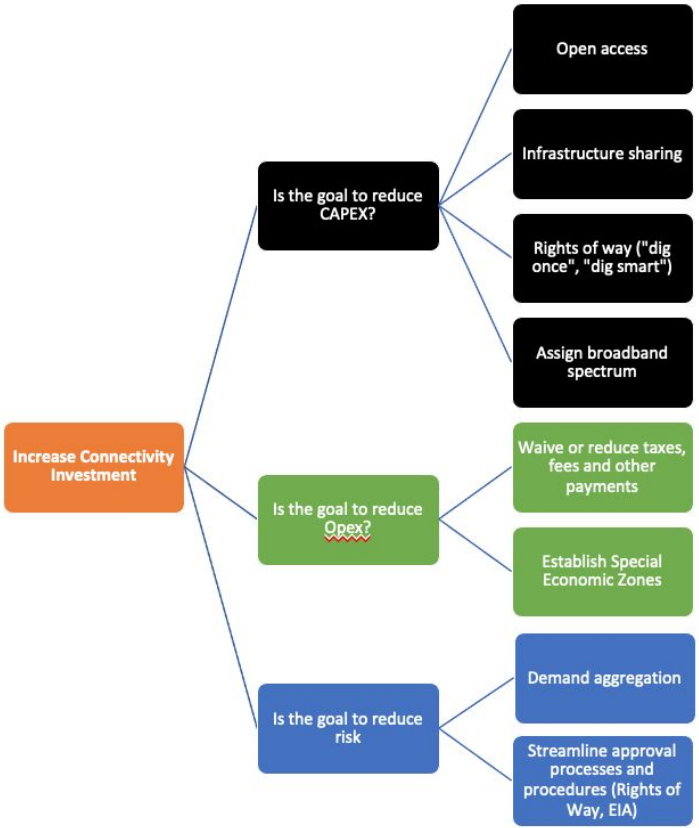
Financing Landscape

Funding Decision Tree – Mitigate risk, reduce cost



Policy and Regulatory Incentives

Connectivity



Regulatory Tools: Options to apply regulatory interventions

(1) **Public-funding conditions** – for example, dig once and dig smart policies and processes for publicly-funded municipal networks

(2) **Guidelines and memoranda of understanding** – or vertical regulation for cross-cutting issues like EIA applications and rapid-deployment rules;

(3) **Universal-service obligations** – for example, open-access requirements for broadband spectrum licensees, where applicable;

(4) **Informal practices** – such as municipalities and communities allowing broadband providers access to lines of sight, e.g. roofs of government buildings, water towers and other tall structures, for the installation of transmitters, antennas and other networking equipment, thereby reducing the cost of broadband deployment and promoting expansion

Financing Landscape
Traditional models

Capex, Vendor finance, project finance	State Ownership and Public utility models	Public Private partnership models	Obligations	Demand Subsidisation models
• Financed by operators, vendors banks, private equity firms usually through project finance. • Often for the extension for upgrade of networks in commercially viable areas.	• Publicly funded network deployment and operation. • This includes open access networks, government built networks, and high cost rural and underserviced area networks.	• Public funding to reduce risk, while the skill and capital of private sector are also deployed. • PPPs range from full ownership to Build, Own and Transfer-type models.	• Universal service extension is financed through obligations on licensees. • These are pay or in cash obligations such as USF contributions, and rollout or play obligations. There is a lot of discussion on their efficacy or lack thereof.	• Subsidies from the government to specific types of users like low income, SME or strategic institutions like schools. • E-rate (South Africa) and Lifelines (USA) are classic examples.

Financing Landscape

Innovative Models

Demand aggregation/ anchor tenant

- guarantee in and clustering demand to make investments more attractive
- school connectivity or government rollout where department procure jointly is a classic case

Blended finance

- a mix of sources of funds with funders with complimentary interests focused on sustainability
- the public benefit. of the project must exceed the returns to private investors

Venture capital

- best used for funding higher risk SMEs and innovation using private capital (high risk, high return)
- Venture Capital Fund of Funds allows public exposure to the model (case study to follow)

Municipal and community broadband models

- community takes responsibility for deployment and maintaining the last mile network
- can be done in partnership with local government and private sector
- Municipal models include passive infrastructure models, whole sale access, fully integrated models

Crowdfunding

- technology enabled contributions from social and personal networks, donors and foundations, amongst others
- Four key models - (1) donor based; (2) Lending based (Mekar, Indonesia); and (3) reward based (IdeaMe, Latin America); (4) Equity based

USAF 2.0 and structured funds

- Collective investment vehicles with a defined legal status and pooling of financial resouces
- A new spin on the traditional USF (evolved USF)
- SME Funds, Innovation Funds, Structural Funds

Assessing the UAS policy and Strategy

UAS Strategy and Fund Assessment: Summary of Assessment Fundamentals

CRITERIA	DESCRIPTION
Timing	• Strategy assessment should not commence too late, or too long after the implementation has commenced. Outcomes of the assessment need to be integrated into the rest of the strategy implementation.
Evidence-based and Data-driven	• Evidence gathered through the assessment should inform outcomes. It is key that appropriate and good quality data is gathered. It is furthermore important that the right tools to utilise the data are in place, for example mapping/GIS tools, models, etc.
Outcomes-driven	• The goals and outcomes that were defined early on need to guide the project.
Leadership	• Governance arrangements established at the outset should include leadership for the programme. Leadership should be committed to outcomes and thus to the completion of a proper assessment. Lack of leadership is a risk to the project.
Ownership	• Governance arrangements established at the outset should include ownership for the programme- this can be joint, but if so, roles and responsibilities must be clearly stipulated. Lack of ownership impacts accountability and is a risk to the project.
Funding	• Adequate funding for all aspects of M&E built into the project financing to enable proper assessment
Capacity	• Staff resources dedicated to M&E, and specifically to strategy / fund assessment, as applicable.
Collaboration	• The assessment should be a collaborative process. All partners, beneficiaries and relevant policy makers and regulators must be involved in the process alongside any other relevant stakeholders.
Integrity and Transparency	• The assessment must be transparent– there must be a desire to identify challenges and risks, and to understand and obtain outcomes that will lead to effective implementation. The integrity of the assessment is key.

UAS Strategy and Fund Assessment

Exercise: Checklist and Discussion

- ☑ An assessment framework has been published and agreed
- ☑ The budget has been analysed and the relevant financials have been audited by independent financial advisors;
- ☑ Each pillar or programme is assessed independently, as well as collectively. The actual outcomes achieved have been measured against desired outcomes;
- ☑ Agreed upon, credible baseline and evaluation data has been used, including indicators;
- ☑ A broad range of stakeholders has been consulted (a) on the framework; and (b) on the outcomes of the assessment, including the budget;
- ☑ The granting process is transparent and bids were advertised publicly
- ☑ The assessment outcomes have been published;

Assessing the Universal Service Fund

UAS Strategy and Fund Assessment

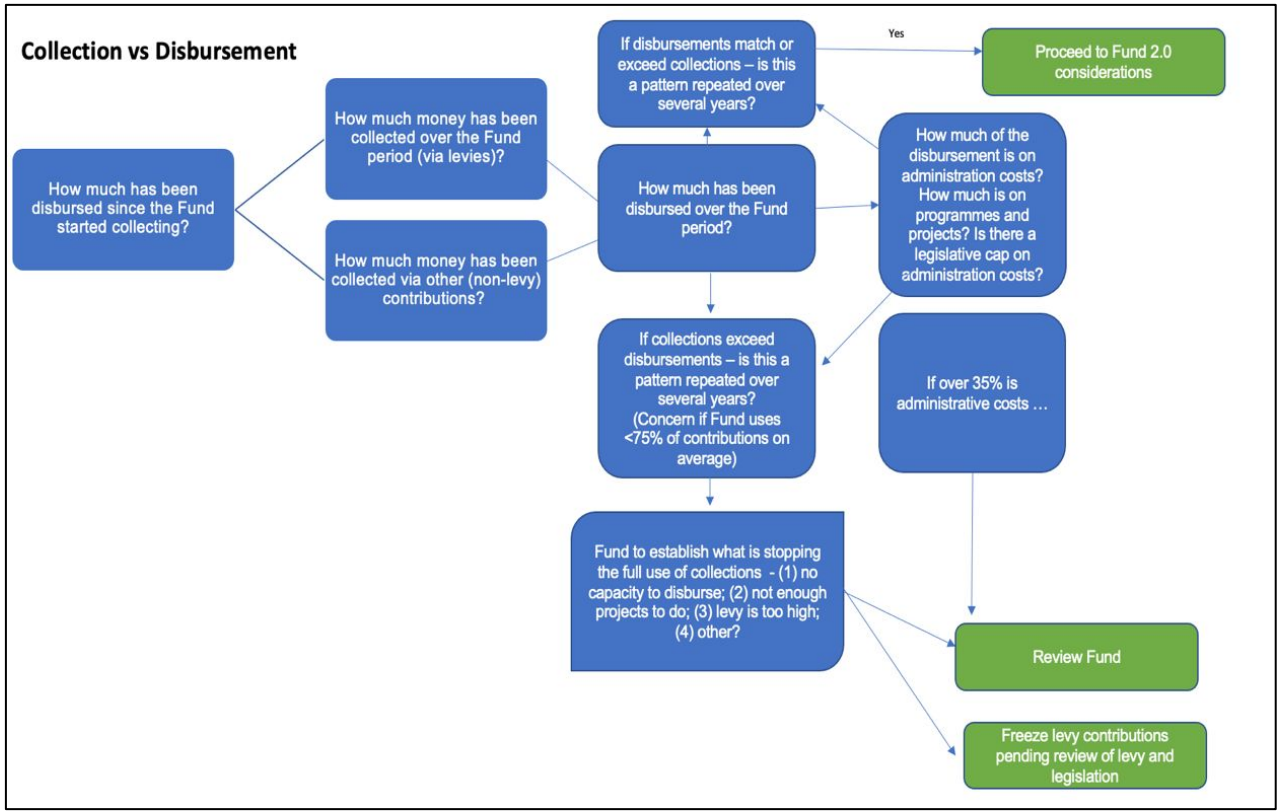
What tools can you use for Fund assessment?

Tool (in place before implementation)	Measure (used continually)
Strategy – e.g. National Broadband Strategy and Plan/ Digital Agenda/ Roadmap / Cross sectoral digital strategy	What targets were set and what role has USAF played in meeting it?
Research – e.g. Market Gap Analysis, Baseline data, scenario planning and forecasting and/or mapping	What targets were set and what role has USAF played in meeting it?
Technology analysis and plan	What targets were set and what role has USAF played in meeting these? The mix of access technologies? Were any changes made during the course of the strategy?
Budget	Financial performance, USAF performance against budget

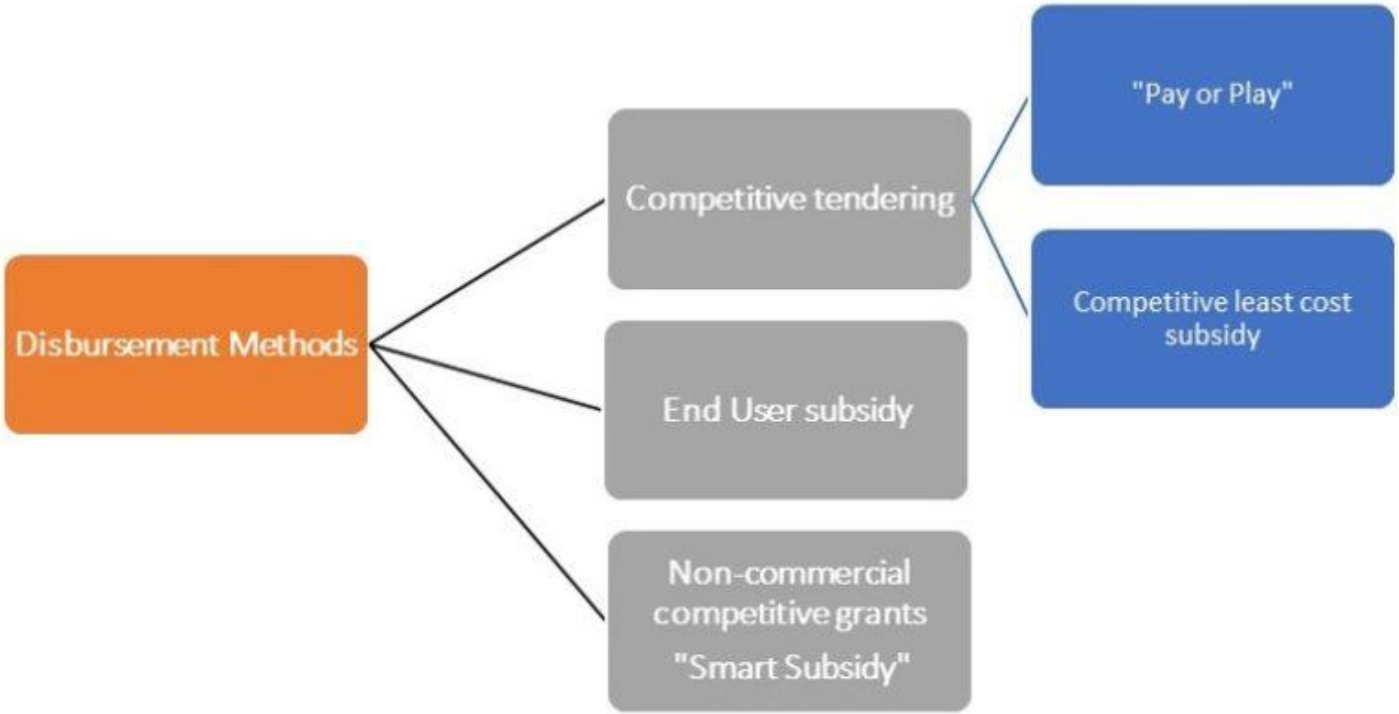
Elements for Performance Assessment

1. Sources of Funding
2. Disbursement Options
3. Beneficiaries
4. Fund Administration
5. Governance, Transparency and accountability
6. Scope and mandate
7. Autonomy

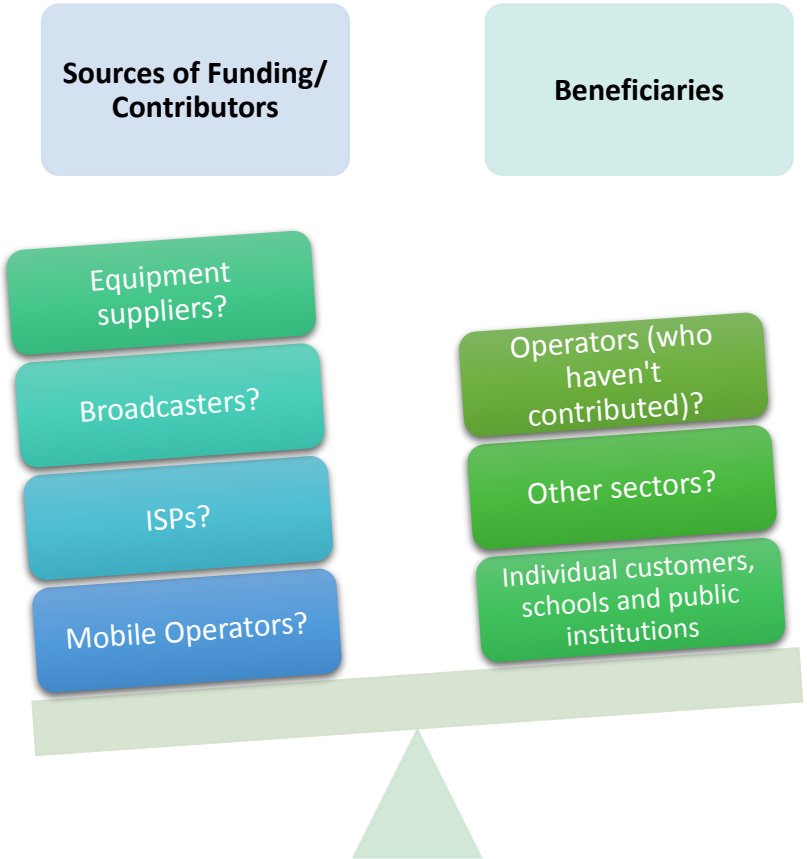
Performance Assessment: Sources of Funding



Performance Assessment: Disbursement Options



Performance Assessment: Beneficiaries



- Who are the contributors to the UAS fund (list)?
- Who are the beneficiaries (list)?
- Is there a problem in principle with parties who did not contribute to the UAS fund, receiving subsidies and grants from the fund (i.e. being beneficiaries)? Is there a legislative limitation in this regard?
- Is there a problem in principle with private parties who are not licensed (whether or not they contributed to the fund) receiving subsidies and grants from the fund (i.e., being beneficiaries)? Is there a legislative limitation in this regard?
- How would the fund treat applications for funding from parties that are not licensed and not contributors, such as platforms, OTT service, applications providers, communities using unlicensed spectrum? Is there a legislative limitation in this regard?
- Who are the public sector beneficiaries from the fund (e.g. schools, hospitals, clinics)? On what basis are they selected? Are there any limitations on public sector beneficiaries from the fund?

Performance Assessment: Fund Administration

- ☑ A qualified fund manager/CEO and management team that includes technical, project management, legal and financial expertise.
- ☑ An objective board.
- ☑ Funds are ringfenced and in a separate bank account managed by the fund.
- ☑ Audited annual financial statements are required.
- ☑ Published application procedures, often captured in a fund manual.
- ☑ Requirements for periodic reporting, and annual audited accounts.

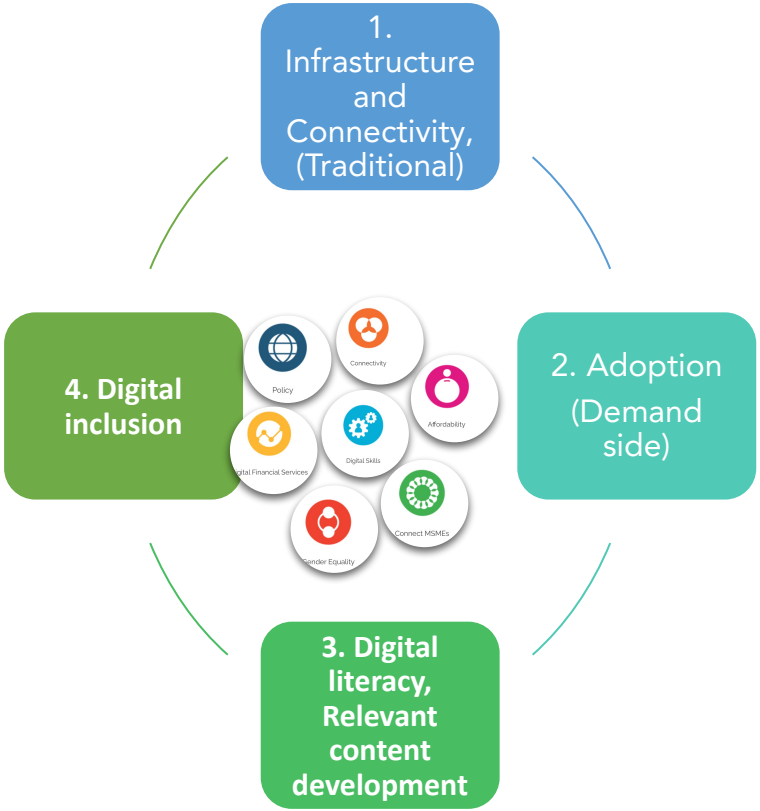
Performance Assessment: Governance, Transparency and accountability

ASSESSMENT CRITERIA	GOOD PRACTICE	FUND COMPLIANCE LEVEL (High, Medium, Low)
Roles and function of board	- Oversight over budget and expenditure (minimum of quarterly meetings) - Environmental, social and governance (ESG) oversight (Quarterly ESG reports) - Compliance oversight (Quarterly compliance reports)	
Board composition	- Inclusive and representative of national demographics - Broad and relevant skills base	
Stakeholder and community management	- Quarterly community and stakeholder sessions - Information available in an accessible format on an updated website	
Integrated reporting and disclosure	- Sustainability reporting and disclosure should be integrated with the project's financial reporting	
Risk management framework	- Delegation of authority framework - Anti-corruption measures - Declaration of interest (at each stage of the project/ all meetings) - Minimal political exposure (donations, project implementation/ spending based on political imperatives, etc.) - Regulatory compliance (ICT, competition, financial services, etc) reported on quarterly	
Auditing and accounting	- Annual audited financial statement published - Financial manager employed at all times - External auditors appointed and approved by the Board	

Performance Assessment: Autonomy

QUESTIONNAIRE TO ASSESS AUTONOMY	
Governance	• How is the budget allocated? • Do funds go directly to the Fund budget and is it ringfenced? To the National revenue Fund/ general government budget? If the latter, does the Fund have to motivate for an allocation? Is there any bearing between the levy and the amount the Fund receives? • Who appoints the Board? Who does the Fund Board report to? • Does the line Ministry or any other ministry have a say in disbursement decisions?
Capacity and human resources	• Is the Fund a stand-alone entity or housed within the regulator/Ministry? • Does it have a full time Fund Manager? Does it have a full-time senior finance manager? • Does it have access to a full-time legal resource? Technical resource? Project manager? (in house or external?) • What other staff does it have in house? What other staff does it have access to on an as needed basis? • What kind of work are consultants hired to do?
Project management and reporting	• Are Fund goals and targets clearly stipulated? Are they measured periodically and in regular intervals (i.e. at least annually)? • Are project goals and targets clearly stipulated? Are they measured throughout the life of the project? • Are project reports prepared? Are they published (at a minimum annually)? • Are financial statements prepared? Are they published (at a minimum annually)? Is an annual report prepared? Is it published?

Performance Assessment: Scope and mandate



- ☑ Legislation or regulation limits the scope of intervention to one or two sectors (e.g., education and health)
- ☑ Legislation or regulation does not cater for the implementation of adoption, access and usage strategies
- ☑ End users, both individuals and institutions, are not considered as potential beneficiaries (only those that contribute can benefit)
- ☑ Digital inclusion and access for marginalized and vulnerable communities is not catered for in legislation or regulation
- ☑ The fund framework does not recognise the multitude of potential funds, investors and financiers and does not support collaboration

New Roles for USAF 2.0

Recap - when do you need to make amendments?

Legislation/ regulation limits the scope of intervention to one or two sectors (e.g., education and health)

Legislation /regulation does not cater for the implementation of adoption, access and usage strategies

End users, both individuals and institutions, are not considered as potential USAF beneficiaries (e.g. only those that contribute can benefit);

Digital inclusion and access for marginalized and vulnerable communities is not catered for in legislation /regulation

the USAF framework does not recognise the multitude of potential funders, investors and financiers and does not support collaboration

The institutional and governance framework is not clearly stipulated or does not facilitated the autonomous management of the Fund by a skilled board and management team

IF ANY OF THE ABOVE APPLY DO NOT PROCEED TO FUND 2.0 UNTIL AMENDMENTS ARE NEEDED!

Funding UAS Projects: From Strategy to Impact

Project Types

Characteristics of a good project

Good Projects

1. Within mandate and scope - Eligible for funding, i.e. meet the funding criteri and principles
2. Sustainable and aligned with national strategic objectives
3. Evidence driven, i.e. based on quality and rigorous research and data
4. Transparently selected
5. Properly governed and managed
6. Supported by relevant partners and stakeholders
7. Properly planned, executed and evaluated

Project Design
Overview

Project Design

Step 1 - Readiness Assessment

1

Checklist: Readiness

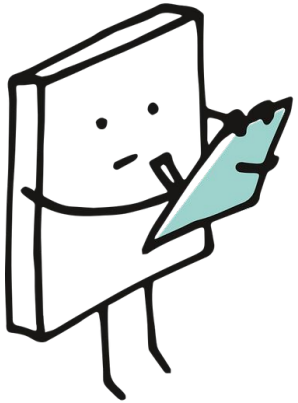
- ☐ Overarching policy, strategy, agenda in place (e.g. National Development Plan, Digital Agenda, UAS strategy, donor/partner policy, or others)?
- ☐ Have the champions for the UAS strategy implementation and therefore for building and using an M&E system been identified? They may be from government, parliament, civil society, donors, others.
- ☐ What is motivating those who champion building an M&E system—a political reform agenda, pressures from donors, a personal political agenda, or political directive?
- ☐ Have M & E managers within the institution been identified and trained?
- ☐ Have M & E tools been agreed, and has training been provided on them?
- ☐ Are there any evident links between budget/resource allocation procedures and M&E information?
- ☐ Does the Monitoring system have clear ownership, management, maintenance and credibility?
- ☐ Data collection standards and evaluation methodologies have been agreed and include assurance that data collection will be reliable, valid, credible, and timely.

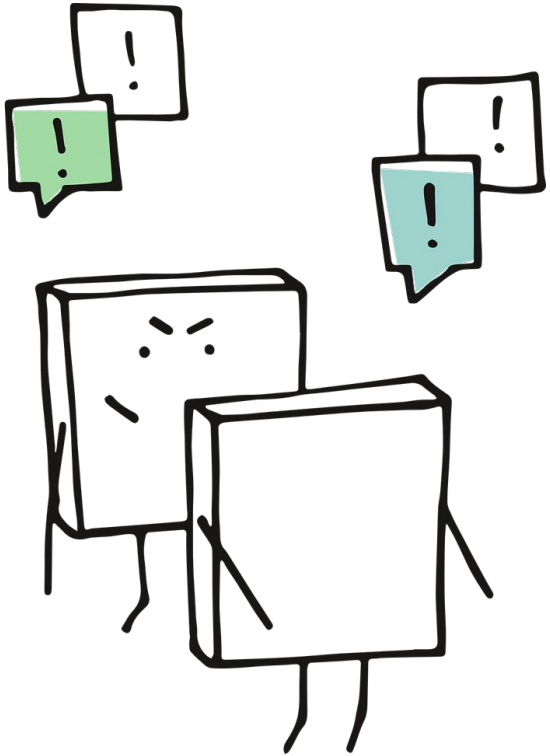
Project Design
Step 2: Evidence, Baseline Research

2

The **common market research approaches and tools** that are used to inform the baseline study are similar to those that will be used later on for monitoring and evaluation.

They include:
- Desktop research and a systematic review of relevant official statistics
- Case studies
- Structured questionnaires
- Focus groups
- Surveys
- One-on-one interviews





Project Design

Step 3: Indicators for Baseline and Measurement of Impact

3

Connectivity

- ICT Indicators
  - Fixed-telephone network indicators;
  - Mobile-cellular network indicators;
  - Internet, traffic and bundled services indicators;
  - Quality of Service (QoS) indicators;
- Investment Indicators
  - Telecoms infrastructure investment
  - Also see ESG Social Indicators

Adoption

- ICT Indicators
  - Market Penetration
  - SIMs per subscriber
  - ICT Prices indicators.
  - Quality of Service (QoS) indicators
  - Average Revenue Per User

Innovation / R & D

- Investment Indicators
  - Employment (ICT sector and subsectors
  - Telecoms services revenue
  - Value added of ICT sector and sub-sectors
  - R& D related patents
  - ICT goods and service exports, by economy or region of value added origin
  - ICT investment by capital asset, as a percentage of GDP

Inclusion

- Development Indicators
  - Number of community organisations in the area/project
  - Number of youth groups in the area/project
  - Women/ youth/ elderly/ PWD with access to broadband
- Structure of political leadership in project area, by age and gender

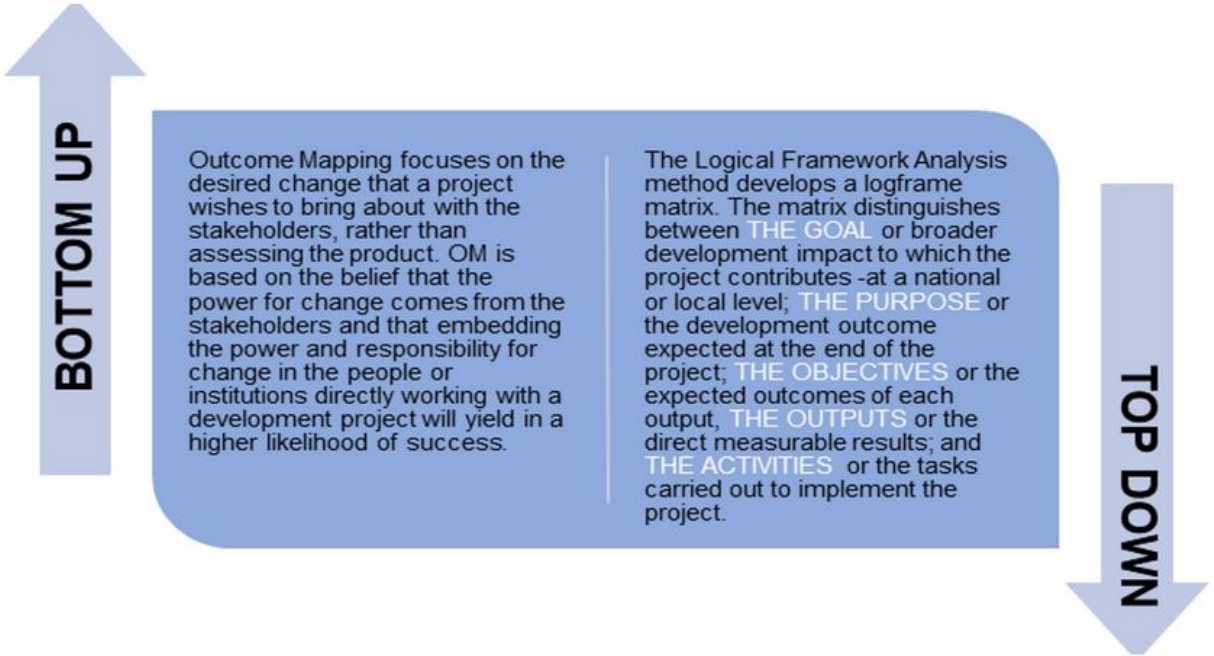
ESG

- Environmental impact indicators
- Social Indicators
- Governance indicators

Project Design

Step 4: Selection of Targets

4



Project Design

Step 4: Selection of Targets

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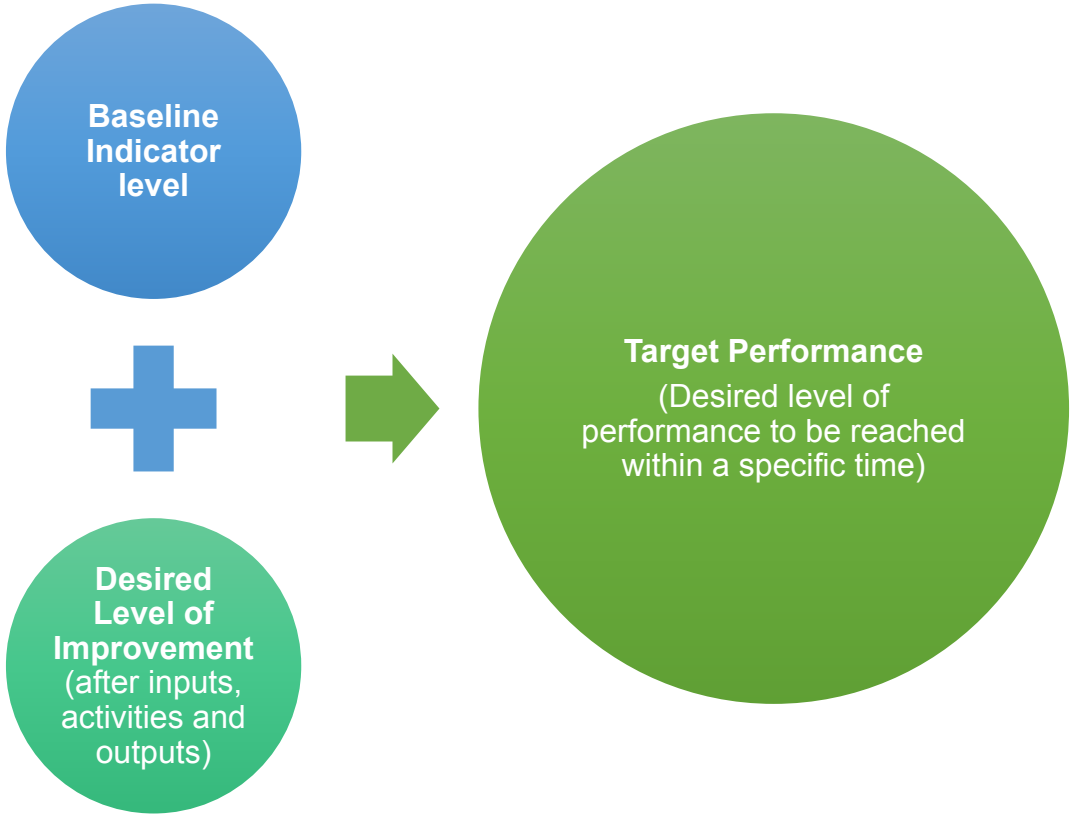

Project Design

Step 4: Example of project design

4

	Projects	Outcomes	Indicators	Baseline	Target (can be broken down into annual targets)
Basic infrastructure	Basic mobile infrastructure gaps projects.	Increase rural coverage and penetration. Targets for the number of sub-locations to be connected to the national backbone.	% of population covered.		99% coverage at end of 5 years
Basic infrastructure	Rural fibre-optic backbone projects to sub-county and key sub-locations.	Increase rural coverage and penetration. Targets for the number of sub-locations to be connected to the national backbone.	% of sub-locations connected to fibre backbone.		All feasible identified sub-locations connected
Broadband connectivity	Education connectivity project.	Increase the availability of digital learning in secondary schools. Acceleration of computer studies curriculum participation.	Number of secondary schools connected. Number of tertiary institutions connected.		50% of schools connected
Broadband connectivity	Broadband connectivity to public institutions.	Growth in ICT usage in sector.	Achievement of project targets.		TBA

Project Design:

Step 5: Monitoring for Results - from Continuous Assessment to Final Evaluation

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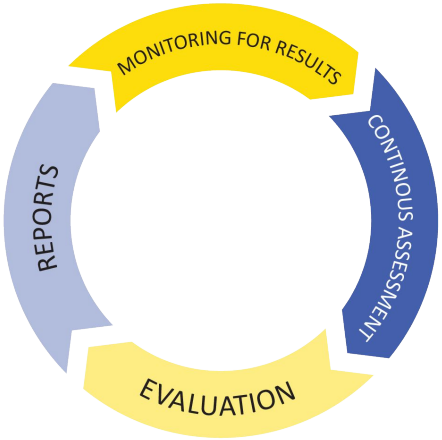

Criteria	Description
Timing	Assessment should not commence too late, or too long after the implementation has commenced. It will be difficult to make changes in response to challenges identified, and will increase costs. Assessment outcomes need to be integrated into the rest of the implementation.
Leadership	Governance arrangements should include leadership for the programme. Lack of leadership is a risk to the project.
Ownership	Governance arrangements should include ownership for the programme- this can be joint, but if so, roles and responsibilities must be clearly stipulated. Lack of ownership impacts accountability and is a risk to the project.
Collaboration	Assessment should be collaborative . All partners, beneficiaries, policy makers and regulators must be involved alongside any other relevant stakeholders.
Integrity and Transparency	Assessment must be transparent– a desire to identify challenges and risks, and to obtain outcomes that will lead to effective implementation. Integrity is key.
Outcomes-driven	The goals and outcomes that were defined early on need to guide the project.
Evidence-based and Data-driven	Evidence gathered should inform outcomes. Appropriate and good quality data should be gathered using the right tools, e.g. GIS tools, models, etc.
Funding	Funding for all aspects, including M&E, should be built into the project financing,
Capacity	Dedicated staff resources for M&E and assessment, as applicable.