

# Multiplatform MedUX

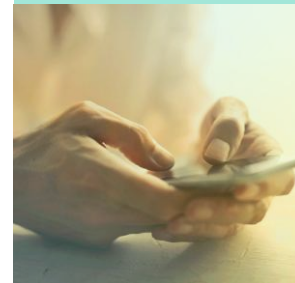
## Mobile & Fixed QoE Testing in Ivory Coast

### Session 5 : QoS and QoE assessment in mobile and fixed networks

May 13, 2026

MedUX

ARTCI  
AUTORITE DE REGULATION DES TELECOMMUNICATIONS DE COTE D'IVOIRE



# Agenda

01

## MedUX – Who Are We?

Global presence and key clients

02

## Multi-Platform QoE Ecosystem

Solution suite and architecture

03

## ARTCI Objectives

What ARTCI expected from this project

04

## MedUX Response

Field deployment & technical solutions

05

## Key Results – Mobile & Fixed

Coverage, Reliability, throughput & user experience

06

## Conclusion & Value Delivered

Enhanced Regulatory Oversight & Future Perspectives



WHO ARE WE ?

# Global Presence

**+ 40 Countries**

International presence.

**Global presence.**

Centers of excellence throughout the world.

 **Projects**

 **Offices**

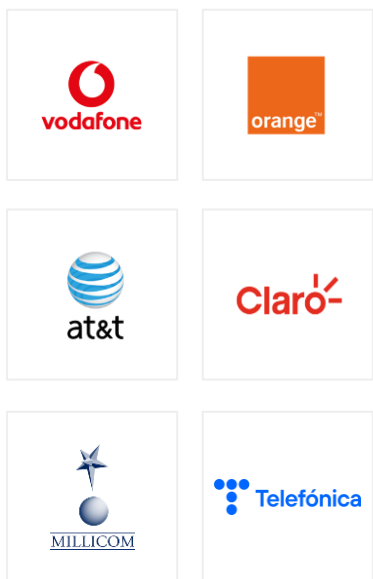




WHO ARE WE ?

# Global Trusted Partner

## Global TELCOs



## Governments

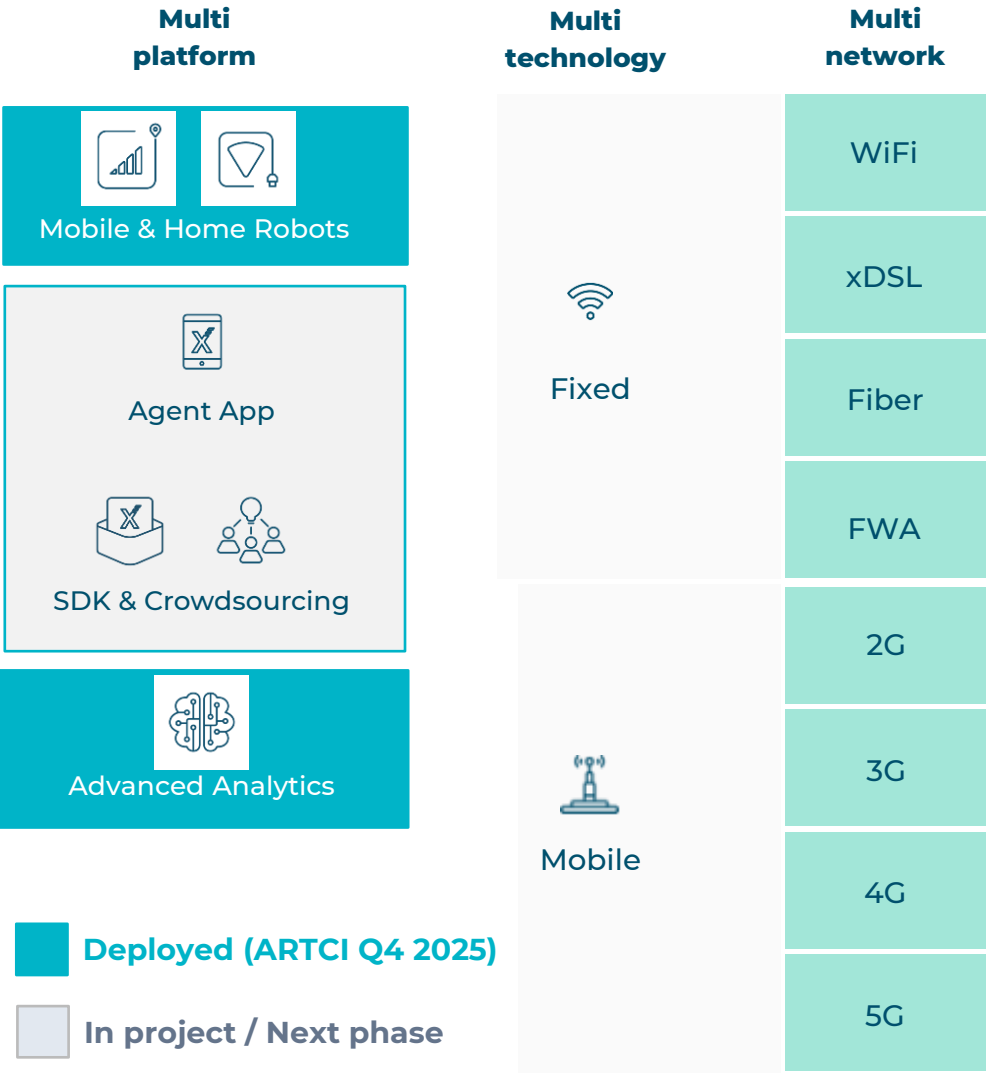


## Other Carriers





# Solution suite and architecture deployed



- Deployed (ARTCI Q4 2025)
- In project / Next phase



## Data Visualisation

Processed data and results are presented in the MedUX Analytics Portal, accessible at any time from anywhere.

## Data Processing

Information is transmitted in real time to MedUX Cloud, where it is compiled and processed

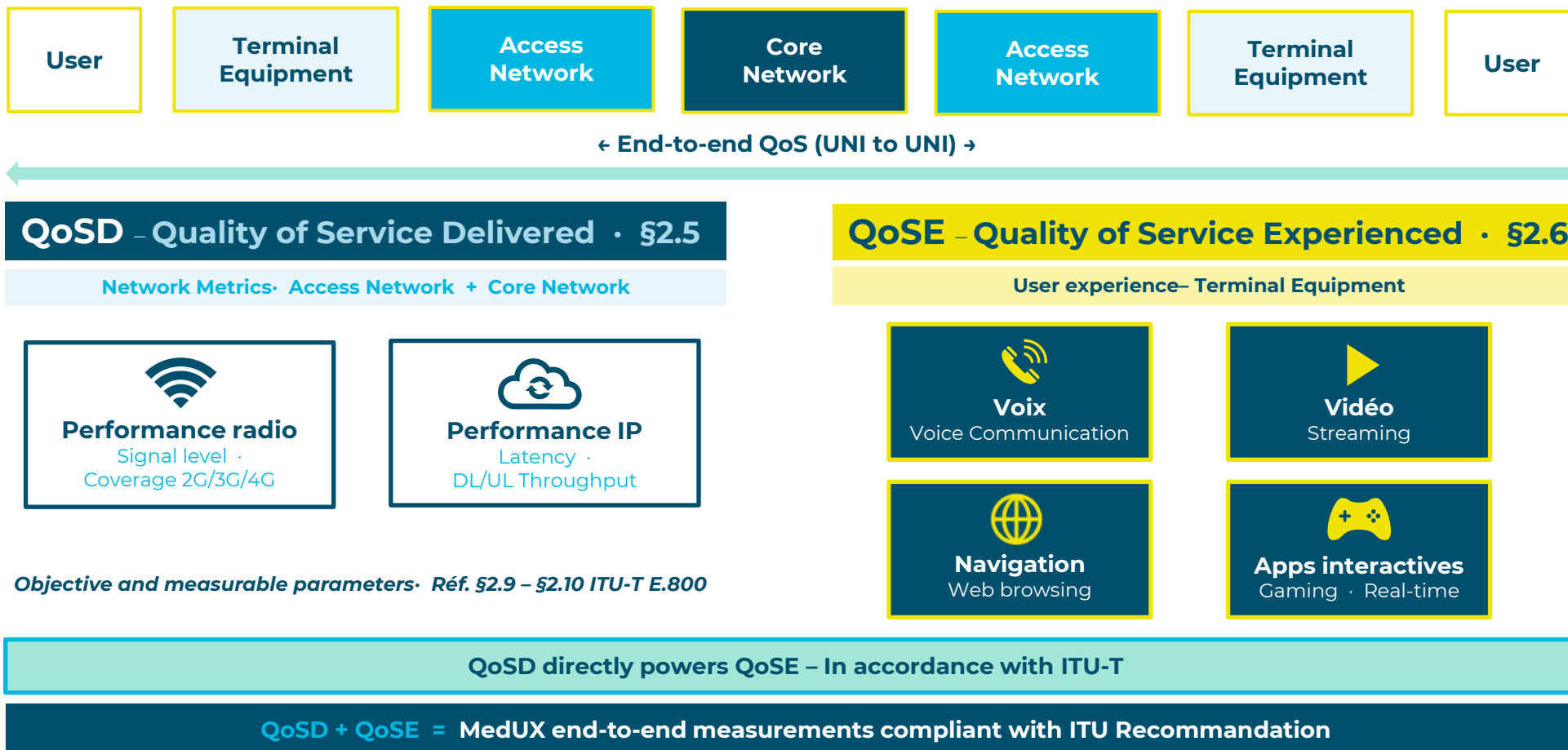
## Data Collection

Using active & passive methods, MedUX gathers user experience data across fixed and mobile networks.

- ✓ MedUX Mobile & HOME deployed
- SOON SDK & Crowdsourcing – next phase

# MedUX QoS/QoE Methodology - ITU-T Compliance

Fig. 1 – ITU-T E.800 Reference Model (contributions to end-to-end QoS)



# ARTCI Expected Objectives – Mobile Network



## Assess mobile network coverage

Map 2G/3G/4G signal quality along major national road corridors and in key cities : Abidjan, Assinie, Aboisso/Noé, Yamoussoukro, Bouaké, Korhogo, Dabakala, Tafire

01



## Benchmark the 3 operators mobiles & 2 for fixed

Compare 3 national operators under identical conditions: radio performance, coverage, throughput DL/UL,, latency, streaming, voice, gaming and web browsing

02



## Measure real user experience (QoE)

Go beyond network KPIs to measure what end users actually perceive: video quality, load times, call success

03



## Ensure regulatory compliance

Build an objective, independent and standardised database for monitoring operator service quality across the Ivory Coast

04

# ARTCI Expected Objectives – Fixed Network

## Continuous fixed broadband monitoring at permanent sites in Abidjan



01

### Monitor fixed broadband quality 24/7

Continuously measure fibre performance 3 operators at permanent locations in Abidjan using MedUX HOME probes — no manual intervention required



03

### Measure end-user QoE on fixed services

Go beyond raw speed tests to assess what subscribers actually experience: YouTube quality, page load times, social media responsiveness, gaming latency



02

### Benchmark 2 operators on identical conditions

Compare both fixed operators on throughput (DL/UL), latency, web browsing, streaming, social media and gaming under the same test protocol



04

### Build a long-term regulatory baseline

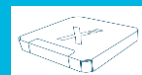
Collect a statistically robust dataset (Oct – Dec 2025) to establish service quality benchmarks and support future regulatory decisions on fixed networks

# Field deployment & technical solutions



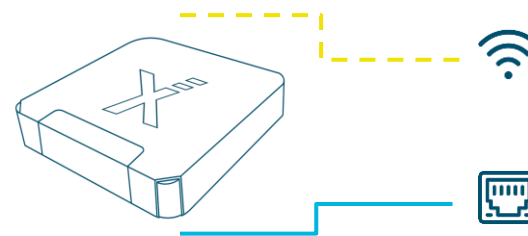
## Mobile QoS/QoE – MedUX Mobile DT

- 6 ARTCI Drive Test vehicles
- 36 Samsung S23 devices (5G SA)  
2 devices per operator / vehicle
- 1 month in Q4 2025
- All major cities & national road corridors
- 3 national operators
- 112,756 tests performed  
2.9M+ radio samples collected



## Fixed QoS/QoE – MedUX HOME Probes

- 20 MedUX HOME robots deployed
- Réseaux Fibres (Ethernet & Wi-Fi 6)
- 3 months in Q4 2025
- Abidjan – permanent fixed location
- 3 national operators
- Plug & Play – centralised configuration
- 374,947 tests performed
  - Operator 1 : 122,632 tests
  - Operator 2 : 252,315 tests



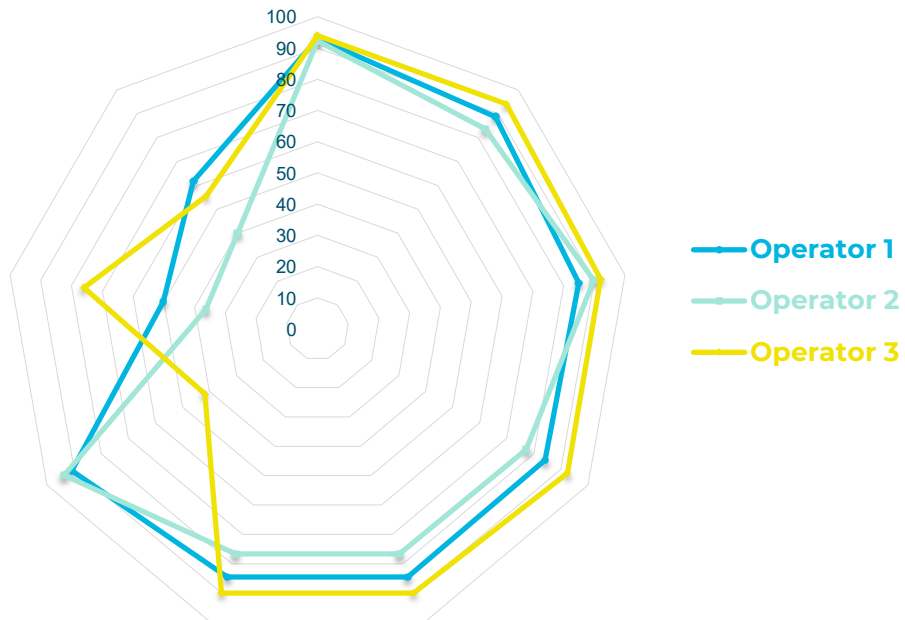


# Key Results – Mobile

## 4G Coverage (% measurements)



## Reliability : (QoE Benchmark by service)



## Main KPIs per service

**Avg. Cloud DL**

**≈ 35 Mbps**

Op. 1 best throughput DL /UL (42 / 12.3 Mbps)

**YouTube Streaming**

**76–90%**

Avg. resolution ~750p

Op. 3 best QoE (90.0%)

**Ping Latency**

**56–98 ms**

Op.2 most responsive 56,6 ms

**Voice Calls**

**50–76%**

Op.3 leader (76.5%)

**Web Success**

**85–92%**

Op.3 leader (92.1%)

**Social Media**

**42–94%**

Op.2 leader (93.7%)



# Main– Fixed QoS/QoE (Abidjan)

**\*Results below cover 2 out of 3 national fixed operators for Q4 2024 – scope extended to all 3 operators from Q1 2026 onwards.**

Services tested	Operator 1*		Operator 2*	
	Success (%)	# Tests	Success(%)	# Tests
Cloud-DL	<b>95,94%</b>	5 965	92,28%	12 263
Cloud-UL	<b>94,99%</b>	5 554	90,55%	9 662
Gaming	55,33%	10 480	<b>91,13%</b>	20 660
Ping	<b>97,17%</b>	33 060	91,06%	70 925
Social Media	<b>96,19%</b>	16 411	91,64%	34 141
Web Browsing	84,85%	41 989	<b>86,45%</b>	84 281
YouTube	88,71%	9 173	88,45%	20 383
<b>TOTAL</b>	<b>88,45%</b>	<b>122 632</b>	<b>89,43%</b>	<b>252 315</b>

## Overall Reliabilité — Success rate per service

**Op. 2 — Score global**

Total success rate  
**89,43%**  
*Global leader out of 252 315 tests*

**Op. 1 — Score global**

Taux de succès total  
**88,45%**  
*Out of 122,632 tests*

### Cloud DL

**Op. 2 — Debits DL**

Median  
**274 Mbps**  
*vs 260 Mbps (Op. 1)*

**Op. 1 — DL Reliability**

Tests completed  
**95,9%**  
*vs 92,3% (Op. 2)*

### Cloud UL

**Op. 1 — UL Reliability**

% tests completed  
**95%**  
*vs 91% (Op. 2)*

**Op. 2 — Max speed UL**

Max speed.  
**147,85 Mbps**  
*vs 102,12 Mbps (Op. 1)*



# Conclusion & Value Delivered



## ARTCI Objectives Fully Achieved

112K+ mobile tests, 2.9M+ radio samples collected  
375K+ fixed tests carried out across the Ivory Coast



## Objective & Independent Benchmark

3 mobile operators (national)  
3 Fixed operators compared under strictly identical conditions



## Full Geographic Coverage

8 major cities, national road corridors  
a permanent fixed monitoring point in Abidjan



## Real-Time Data & Instant Decision-Making

MedUX Analytics Portal accessible at all times for continuous QoE monitoring  
Real-time supervised measurements



## Scope extension

Creation of an application – ARTCI for the general public and available soon on the stores  
Enriching the knowledge base with MedUX crowdsourced data



# Thank you !

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