INFRASTRUCTURE SHARING AND OPEN ACCESS IN GHANA

REPORT ON PUBLIC CONSULTATION

A REPORT BY

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and

THE ALLIANCE FOR AFFORDABLE INTERNET

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A4AI-Ghana Infrastructure Sharing and Open Access Study

Report on Public Consultation

I. Scope

This Report on the Public Consultation (the “Report”) summarises the relevant feedback and input received by the drafters of this Report during the public consultation held on 25th October in Accra, in the presence of the various stakeholders in the Ghana telecommunications market and in the context of the Ghana Infrastructure Sharing and Open Access Study project (the “Project”).

It further provides a brief outlook on general next steps and recommendations with relation to areas and topics to be addressed in Ghana to fully promote infrastructure sharing in the country, following the conclusion of the Project. This Report also provides the backdrop for the main recommendations to be included in the Final Report.

II. Pre-consultation interviews with stakeholders

Prior to the public consultation, several stakeholder interviews were conducted, either by phone of face-to-face in Accra, in order to obtain inputs from the various types of persons and entities acting in the telecommunications market in Ghana and on whom the legal, regulatory and market scenario applicable to infrastructure sharing has a direct impact.

One of the consultants also participated in the IEEE Internet inclusion conference in Washington DC from 5-6 October 2016 attended by the CEOs and VPs of some major global and regional infrastructure companies with a presence in Ghana. Face to Face interviews were conducted with some of these key stakeholders on the sidelines of the conference.

In addition, three focus group discussions were also held with specific groups.
The purpose of these stakeholder interviews was to arrange for an informal, complete and open discussion on the status, challenges and outlook on infrastructure sharing in the country.

While an interview script was used in order to facilitate discussions, stakeholders were encouraged to provide their opinions on any additional relevant topics.

Stakeholder interviews were carried out with representatives of the following entities/working groups, who provided significant in-depth input on the matter on infrastructure sharing in Ghana, the country’s challenges and potential:

- Mobile Network Operators
- National Communications Authority
- ISPs
- Ministry of Communications
- TowerCos
- Ghana Infrastructure Trust Fund
- The Chamber of Telecommunications
- Ghana Data Protection Commission
- A4AI Ghana Tax Working Group
- A4AI Ghana National Coordinator and Deputy
- A4AI Consumer Advocacy working Group
- A4AI Infrastructure Sharing and Open Access Working Group
- Environmental Protection Agency
- MainOne
- National IT Agency (NITA)
- American Tower Company (Parent company of ATC)
- Google
- GIFEC
In general, the main input received in this context was essentially the following:

- Infrastructure sharing is essentially a market-driven practice in Ghana, with most arrangements being determined by the intervening parties’ commercial and strategic interests (although some matters still need streamlining, such as regulatory bottlenecks, pricing and commercial trust issues between operators);

- Existing policy, legal and regulatory framework do not reflect the current status and challenges of the Ghana telecommunications market;

- There are issues with information dissemination (such as availability of coverage and sites mapping) and stakeholder trust and communication;

- Cross-sector initiatives are already in place, but should be capitalized and incentivised;

- There are significant asymmetries in coverage (urban/rural and north/south divide), which arise from lack of profitability associated with certain areas;

- Certain assets are underused and/or their potential as an asset for the sector in Ghana has not yet been determined (Submarine Cables, Eastern Corridor Fibre Project, backbone sharing).

III. The Public Consultation

The public consultation held in Accra was attended by representatives of various Ghanaian stakeholders (list of attendees included as Attachment I to this Report).

The public consultation was conducted in two parts. An initial section included presentations on some principles applicable to infrastructure sharing and a brief overview of the Ghanaian telecommunications market (including available data on coverage, consumer data and pricing and ICT user
profile) and policy/legal/regulatory framework. Preliminary comments and contributions were elicited from stakeholders during the presentation.

A second part of the public consultation consisted of a breakout and brainstorming session. To this effect, different groups were set up so as to include representatives of a diverse group of stakeholders (participant distribution included as Attachment II to this Report).

Each group held internal discussions over part of a total 12 questions included in the discussion script prepared for this purpose (copy of said script included as Attachment III to this Report) and general outputs and conclusions were presented to the remaining attendees, with time allocated for discussion and clarifications.

Overall, the main outputs from the debate sessions were as follows:

1. **Need for new Ghana Infrastructure Sharing Policy**

   Overall consensus by the participants was that it was necessary to overhaul the existing framework for infrastructure sharing, so as to harmonise and improve on existing materials.

   This overhaul should consider and try to instate in Ghana: (i) a better and clearer definition of the role of the Government in the sector and in the specific context of infrastructure sharing, towards an active Governmental role; (ii) a general principle of continuity of governmental plans and policies beyond the duration of electoral cycles; (iii) a multi-sector approach to infrastructure sharing; centralized administrative diligences and functions such as tax, permits, rights of way managements; (iv) revision of the terms in which the Universal Service Fund operates; (v) spectrum sharing terms.

   The policy should have a clear end-game: increasing reliable access for end-users and incentivizing activity and investment by the market players. It should also be well implemented with built in mechanisms to cater for dynamic changes.
2. **Current impact of infrastructure sharing on consumers**

Overall, the feedback received was that consumers were not fully receiving the potential benefits on infrastructure sharing.

In some areas and for some services, quality of service is poor and it is difficult to understand what the service standards are. Moreover, prices for some services are still too high for the average Ghanaian user, due to some costs eroding financial gain for operators (such as utility bills).

3. **Need for new Ghana broadband policy**

Some participants were uncertain in this respect, with a section unsure if a policy existed and was being implemented. Others stated that a new broadband policy is a priority for Ghana and that such a policy would be instrumental in revising penetration and innovation targets for the Ghanaian telecommunications market and in introducing FTTH (fibre-to-the-home).

A group however emphasized no need to reinvent the wheel to develop a new policy, preferring instead to enhance existing ones to accommodate new developments.

4. **Backbone sharing**

Backbone sharing was considered desirable for Ghana and should be viewed under a regional and capital approach (i.e. backbone sharing should ensure links and ramifications into every region and capitals).

Some participants pointed out that any project in this context should be carried out only following a public consultation to this effect and managed by an independent 3rd party to ensure non-discrimination in pricing and service. Few participants mentioned the need to establish guidelines for fibre rollout including well enforced standards (management and maintenance) to ensure quality of service.
5. The TowerCo model

Generally, participants believed that, due to the popularity and commercial importance of the TowerCo model, the activity of towercos in the express context of infrastructure sharing initiatives should be subject to specific regulation. The main issue mentioned in this respect was transparency and communication on price determination, since some participants mentioned that the price applied by TowerCos was higher than the growth rate for all MNOs in Ghana.

From the TowerCos’ perspective, it was mentioned that a lot of variables go into the determination of the applicable price, including: significant costs associated with acquiring sites and building the passive infrastructure, price for purchase of equipment and raw material, as well as inflation.

It was suggested that sharing pricing formulas applied by TowerCos should be subject to regulation. However, some participants suggested that regulation in this respect was not necessary, stating that infrastructure sharing is currently working well on a commercially-driven basis and regulators should only intervene in the event of inefficiencies.

6. The challenge of coverage

Coverage expansion is a need for Ghana, due to the asymmetries currently existing throughout a country with different and challenging population densities.

Some participants suggested that allocation of GIFEC funds (namely, the fee collected from mobile operators, in the amount of 1% the annual net revenues) would be adequate for this purpose, since the areas that are either unserved or underserved are not profitable for operators and would not raise revenue.

GIFEC, due to its institutional mission and budget, would be most suited towards the achieving coverage expansion, by investing directly in
unserved or underserved areas and by promoting dialogue with the various stakeholders in the market, so as to ensure synchronized building (dialogue with operators) and finding commercially viable options for investment in these non-profitable areas (dialogue with TowerCos).

Other participants suggested having a national infrastructure planning office with an official mandate and budget. This entity would be responsible for coordinating public works, managing construction and anticipating industry shifts and trends in this scope.

7. **Deployment bottlenecks / A one-stop-shop mechanism**

The participants agreed that existing bottlenecks cut down on time to market, result in revenue loss and discourage roll-out – therefore, they should be addressed through NCA guidelines to be prepared/reviewed and subject to a strict enforcement culture.

Roll-out should be streamlined under a “1 application, 1 fee” principle: applicants should submit one sole request and pay one sole fee to the NCA (through an existing NCA body or new body to be created therein for this purpose).

This application would include all necessary data and information for NCA to coordinate and synchronise its decision with relevant agencies and authorities, thereby eliminating the need for each applicant to obtain separate authorisations and licences from municipal, environmental, fiscal and other authorities.

8. **The Eastern/Western Fibre Corridors**

Some participants stated that the main challenge for the existing and planned fibre corridors were how to contribute to ensuring last mile coverage, by creating incentives for operators to invest and deploy in areas that would typically not be attractive or profitable from a commercial standpoint. The fibre corridors could do so by ensuring connections between the main structure and district capitals and
reference points such as schools, health facilities, public institutions, internet cafés.

These participants believed that the fibre corridors have the potential to incentivise private investment, by lowering the cost of extension (due to the possible connections with the fibre corridors). Moreover, they see a potential for this fibre project in the context of launching and extending e-government initiatives.

9. **Stakeholder dialogue**

Participants agreed that dialogue between stakeholders was essential in order to coordinate initiatives and rationalize investments, as well as bringing certainty to the market and facilitating trust between the various different stakeholders, particularly considering the significant investments and projects currently in force in Ghana, such as the 5 existing submarine cables, fibre corridors, Base stations, datacenters etc.

This can be carried out through establishing different forums for communication and discussion across sectors such as Transport, Utilities, Communication and Environment. The publication of market information and carrying out public consultations should also come as a result of possible new policies and regulation on the matter of infrastructure sharing. The concern of participants was who the convener of these dialogues should be. Some suggested the NCA.

Overall, the input received in the context of the public consultation focused on the different market dynamics in Ghana in what concerns infrastructure sharing (including interaction between legal and commercial dynamics, practical enforcement of existing provisions and challenges arising from existing investments and projects), as well as the measures that may be undertaken to address and accommodate gaps in infrastructure sharing, to the ultimate benefit of consumers and users of electronic communications services in Ghana.
IV. **Next steps**

Following the analysis carried out in this Report, the Report and Recommendations will focus on best practices and suggested course of action in the context of infrastructure sharing, taking into account the input and feedback received from the stakeholders, both prior to and in the main Public Consultation.

These recommendations will be noted both from three perspectives:

- **Policy** – need for new policies in the sector and/or adjustments to existing policies;
- **Legal** – set-up of different entities and mandates; adjustments to existing laws, in order to correct market distortions in infrastructure sharing terms;
- **Regulatory** – new standards and guidelines, towards a culture of dialogue and enforcement.

Recommendations will also take into account the extent of the rights and obligations applicable to operators and other stakeholders - specifically, in what concerns the extent and scope of infrastructure sharing obligations throughout the various types of market players.

**Attachments:**

Attachment I – **List of Public Consultation Attendees**

Attachment II – **Breakout sessions (group distribution)**

Attachment III – **List of questions for breakout sessions**
# ATTACHMENT I

## LIST OF PUBLIC CONSULTATION ATTENDEES

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Company</th>
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<tr>
<td>Hon. Ato Sarpong</td>
<td>Deputy Minister of Communications</td>
<td>Ministry of Communications</td>
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<tr>
<td>Nana Defie Badu</td>
<td>Director, Consumer &amp; Corporate Affairs</td>
<td>NCA</td>
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<tr>
<td>Kwasi Agyei</td>
<td>Director, Finance</td>
<td>Ministry of Communications</td>
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<tr>
<td>Mwiya Mukunyandela</td>
<td>Manager - ePMP Business Development &amp; Sales</td>
<td>Cambium Networks</td>
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<tr>
<td>Philip Engmann</td>
<td>Telecom Engineer and Founder of GISPA</td>
<td>GISPA</td>
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<tr>
<td>Sherrie Thompson</td>
<td>Founder/CEO</td>
<td>Global Reslove Africa</td>
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<td>Kobe Sam</td>
<td>Software Engineer</td>
<td>Capital One</td>
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<tr>
<td>Pascal Ametorwogo</td>
<td>Solutions Architect</td>
<td>ATC Ghana</td>
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<td>Victor Kwabena Nimo</td>
<td>Director</td>
<td>Dream Keepers Network</td>
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<tr>
<td>Yusif Amadu</td>
<td>ICT Officer</td>
<td>University of Ghana</td>
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<tr>
<td>Afua Koranteng</td>
<td>Head of Legal</td>
<td>ATC Ghana</td>
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<tr>
<td>John Ayitevie</td>
<td>Head of Sales &amp; Business Development</td>
<td>Nokia</td>
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<tr>
<td>Abenaa Vondee</td>
<td>Project Officer</td>
<td>C Squared</td>
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<tr>
<td>Fatima Sani</td>
<td>Business Development Manager</td>
<td>Google</td>
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<tr>
<td>Kwaku Agbesi</td>
<td>Sales Manager</td>
<td>Google</td>
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<tr>
<td>Ama Sekyere-Boateng</td>
<td>Deputy Manager</td>
<td>National Communications Authority</td>
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<tr>
<td>Francois van Zyl</td>
<td>CEO</td>
<td>ATC Ghana</td>
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<tr>
<td>Frederick Asumanu</td>
<td>Snr Manager</td>
<td>NCA</td>
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<tr>
<td>Precious Ankomah</td>
<td>Program Manager</td>
<td>Penplusbytes Ghana</td>
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<tr>
<td>Eric Kwabena Agbozo</td>
<td>Chie Executive Officer</td>
<td>Defence Against AIDS Poverty and Underdevelopment (DAAPU)</td>
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<tr>
<td>Wolako Dake</td>
<td>Marketing/Advocacy Officer</td>
<td>Education Support Services</td>
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<tr>
<td>Daniel Ganyoame</td>
<td>Executive Director</td>
<td>Africa ICT Right</td>
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<tr>
<td>Prosper Legbedze</td>
<td>Network Planning and Design Engineer</td>
<td>Airtel</td>
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<tr>
<td>Emmanuel Ahugah</td>
<td>Country Coordinator</td>
<td>ENO Ghana</td>
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<tr>
<td>Joachim Doe</td>
<td>IP/NMS Engineer</td>
<td>NITA</td>
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<td>Clara Pinkrah-Sam</td>
<td>Innovation/Digital Entrepreneurship and BPO Expert</td>
<td>E- Transform Project,</td>
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<td>Kwame Boakye</td>
<td>President</td>
<td>Ghana Institution of Engineers</td>
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<tr>
<td>Teki Akuetteh Falconer</td>
<td>Executive Director</td>
<td>Data Protection Commission</td>
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<tr>
<td>Kwame Owusu-ansah</td>
<td>Technical Consultant</td>
<td>Bluetone Communications Ghana Limited</td>
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<td>Wisdom Donkor</td>
<td>IT Manager / Technical Lead Ghana Open Data Project</td>
<td>National Information Technology Agency</td>
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<tr>
<td>Cassandra Mensah-Abrampah</td>
<td>Commercial Operations Program Manager</td>
<td>Google</td>
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<tr>
<td>Shola Sanni</td>
<td>Public Policy Manager</td>
<td>GSMA</td>
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<tr>
<td>Kojo Boakye</td>
<td>N/A</td>
<td>Facebook</td>
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<tr>
<td>Brian Dzansi</td>
<td>Social Media Manager</td>
<td>Imani Ghana</td>
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<tr>
<td>Derek Laryea</td>
<td>Head of Research</td>
<td>Ghana Chamber of Telecommunications</td>
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<tr>
<td>Charles Kwame Affum Aboagye</td>
<td>CEO</td>
<td>The Perfect Example Environmental Foundation</td>
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<tr>
<td>Emmanuel Berning</td>
<td>Programme Cordinator</td>
<td>The Perfect Example Environmental Foundation</td>
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<tr>
<td>Samuel Yeboah</td>
<td>Program Manager</td>
<td>Google Ghana Ltd</td>
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<tr>
<td>Peter Osei Mensah</td>
<td>Developments Director</td>
<td>ALL FOR US AFRICA Foundation</td>
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<tr>
<td>Eleanor Afful</td>
<td>ICT trainer in network engineering</td>
<td>AITI-KACE</td>
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<tr>
<td>Kojo Akoto Boateng</td>
<td>Presenter</td>
<td>Citi FM</td>
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<tr>
<td>Eben Ankrah</td>
<td>Head of Communications</td>
<td>SOG Organisation</td>
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<tr>
<td>Solomon Richardson</td>
<td>Head of Infrastructure</td>
<td>NITA</td>
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<tr>
<td>Kwaku Antwi</td>
<td>Researcher</td>
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<tr>
<td>Kafui Tsekpo</td>
<td>Advocacy and Communications Manager</td>
<td>Participatory Development Associates</td>
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<tr>
<td>Ahmed Futa</td>
<td>Valuer</td>
<td>Oasis Property Consult</td>
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<tr>
<td>Eric Kumah-Baku</td>
<td>Public Relations/Protocol</td>
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<tr>
<td>Nanjira Sambuli</td>
<td>Digital Equality Advocacy Manager</td>
<td>Web Foundation</td>
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<td>Wilfred Glover-Akpey</td>
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<td>Charles Asque</td>
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<td>Mohammed Bun Bida</td>
<td>Programmes Director</td>
<td>Muslim Family Counselling Services</td>
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<tr>
<td>Victor Teppeh</td>
<td>N/A</td>
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<tr>
<td>Emmanuel Larbi Offei</td>
<td>Administrative Manager</td>
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<td>Benjamin Ato Afful</td>
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<td>Obed Nyarko Antwi</td>
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<tr>
<td>Ofoe Dorgble</td>
<td>NA</td>
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<tr>
<td>Mavis Obeng Aidoo</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Abed Bandim</td>
<td>N/A</td>
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ATTACHMENT II

BREAKOUT SESSIONS GROUP DISTRIBUTION

**GROUP 1**
- Fatima Suni (Google)
- Sherrie Thompson (Global Resolve Africa)
- John Ayitevie (NOKIA)
- Kwaku Ofosu-Adakwa (A4AI)
- Philip Engmann (Vodafone/GISPA)
- Shola Sanni (GSMA)
- Mawis Openg Aidoo (NCA)
- Magda Cocco (VdA)

**GROUP 2**
- Eleanor Sarpong (A4AI)
- Ato Afful (Airtel)
- Mwiya Mukunyandela (Cambium)
- Estelle Akofio-Soloah (Google)
- Derek Laryga (Telecoms Chamber)
- Kwame Owusu-Ansah (Bluetone)
- Mohammed Bun Bida (MFCS)
- Yusif Amadu (University of Ghana)
- Daniel Ganyoame (Africa ICT)

**GROUP 3**
- Charles Asque (MTN)
- Wilfred Glover-Akpey (NITA)
- Abeda Mensah (Participation Development Associates)
- Brian Dzansi (Imani Ghana)
- Kojo Akoto Boadeng (Citi FM)
- Abed Bandim (NCA)
- Augustine Sekyene (AIRTEL)
- Emmanuel Ahugah (AIRTEL)
- Loro Osei-Ofori (Google)
- Sonia Jorge (A4AI)

**GROUP 4**
- Obed Nyarko Antwi (All for us Africa Foundation)
- Ofoe Dorgble (Ada FM Network)
- Kwaku Antwi (GIMPA)
- Peter Osei Mensah (All for us Africa Foundation)
- Wolako Dake (Education Support Services)
- Isabel Ornelas (A4AI)
- Emmanuel Ahugah (ENO Ghana)
- Joachim Mensah Doe (NITA)
- Cassandra Mensah-Abrampah (Google)
- Afua Koranteng (ATC)

**GROUP 5**
- KOJO BOAKYE (FACEBOOK)
- PHILIP PREMPEH (GIFEC)

*List incomplete*
ATTACHMENT III

LIST OF QUESTIONS FOR GROUP DEBATES

GHANA INFRASTRUCTURE SHARING CONSULTANCY STUDY
Questions for debate by Discussion groups
Public Consultation Workshop - Accra 25th October 216

1. Do you think a new infrastructure sharing policy would be useful to infrastructure sharing in Ghana? If so, which matters should be addressed therein?

2. Are consumers receiving the full benefits of infrastructure sharing (price reduction, more services and better quality of service) across the board and for all telecom services?

3. Does Ghana need a broadband policy? If so, which matters should be addressed therein?

4. Do you think backbone sharing is currently desirable for Ghana? Do you think this will become a reality for Ghana in a near future?

5. How can infrastructure sharing contribute to accommodate current national roaming and national coverage needs in Ghana?

6. TowerCos are the most common sharing mechanism in Ghana. Do you think this model is sufficiently regulated? Is regulating sharing prices a desirable option?

7. How do you think coverage expansion can take place without additional costs to operators?

8. Would a one-stop-shop mechanism be an accurate tool for cutting down time-to-market and deployment costs? If so, which do you find to be the biggest market bottlenecks?

9. What challenges/advantages do you think the Eastern/Western Fibre Corridor may bring to infrastructure sharing?

10. What can the regulator and/or Government do in the short term to address the current barriers to infrastructure sharing in Ghana?

11. How can government ensure better synergies between the Telecoms, Utilities and Roads and Transport sector to ensure infrastructure sharing and access? (e.g. Is data readily available?)

12. What do you think the various shareholders could do to promote a more transparent, dialogue-based market?