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| **Abstract:** | This document contains the report of the sixth meeting of the ITU-T Focus Group on Artificial Intelligence for Health (FG-AI4H), held in Zanzibar, 3-5 September 2019. Revision 1 corrects affiliation mistakes by the secretariat. |

Executive summary

Mrs Manjula Singh (Indian Council of Medical Research, ICMR, India) has been appointed as new FG-AI4H vice-chair.

Mr Chandrashekar Ranga (Central Drugs Standard Control Organisation, CDSCO, India) has been appointed as vice-chair of the WG on regulatory considerations.

[Sixth ITU/WHO Workshop](https://itu.int/en/ITU-T/Workshops-and-Seminars/ai4h/201909/Pages/programme.aspx) on "Artificial Intelligence for Health" was held in Zanzibar, Tanzania on 2 September 2019. About 110 participants attended physically and about 40 participants attended remotely.

The following new topic groups have been created:

* TG-Malaria on malaria detection. TG driver: Rose Nasaki (Makerere University, Uganda).
* TG-Bacteria on diagnoses of bacterial infections and AMR. TG driver: Nada Malou (MSF, France).
* Added AI-assisted diagnostic system in coronary computed tomography angiography as a sub-group in [TG-Cardio](https://www.itu.int/en/ITU-T/focusgroups/ai4h/Pages/cardio.aspx), coordinated by Nathan Guo (ShuKun Technology, China).

The FG reviewed 41 input documents and issued the following output documents:

* [FGAI4H-F-102](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-102.docx): Updated Call for Proposals: Use Cases, Benchmarking and Data.
* [FGAI4H-F-103](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-103.docx): Updated FG-AI4H data acceptance and handling policy.
* [FGAI4H-F-105](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-105.docx): ToRs for the WG-Experts and call for experts (to be published after a two-week consultation period).
* [FGAI4H-F-106](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-106.docx): Guidelines on FG-AI4H online collaboration tools.

Two outgoing (reply) LSs were prepared at this meeting: to ITU-T SG17 ([FG AI4H-LS1](https://www.itu.int/ifa/t/2017/ls/fgai4h/sp16-fgai4h-oLS-00001.docx)) and to JTC1 SC42 ([FG AI4H-LS2](https://www.itu.int/ifa/t/2017/ls/fgai4h/sp16-fgai4h-oLS-00002.docx)).

**CONTENTS**

1 Opening 4

2 Approval of agenda 4

3 Documentation and allocation 4

4 IPR 4

5 Management updates 4

6 Approval of Meeting E outcomes and updates 4

7 Outcome of the workshop 4

8 Review of incoming LSs 4

8.1 FG-DLT 4

8.2 FG-DPM 5

8.3 ITU-T SG17 5

8.4 JCA-IoT and SC&C 5

8.5 JTC 1/SC 42 5

9 Working Group updates 5

9.1 Data and AI solution assessment methods (WG-DAISAM) 5

9.2 Data and AI solution handling (WG-DASH) 5

9.3 Operations (WG-O) 6

9.4 Regulatory considerations on AI for health (WG-RC) 6

9.5 Health requirements (WG-HR) 7

9.6 Experts (WG-Experts) 7

9.7 Potential new WGs 7

10 Horizontal and strategic topics 7

11 Updates to TGs and new proposals 8

11.1 Template updates: TDD, CfTGP 8

11.2 TG-Cardio (Cardiovascular Risk Prediction) 8

11.3 TG-Cogni (Neurocognitive diseases) 8

11.4 TG-Derma (Dermatology) 9

11.5 TG-DiagnosticCT (Volumetric chest computed tomography) 9

11.6 TG-Falls (Falls among the elderly) 10

11.7 TG-Histo (Histopathology) 10

11.8 TG-Ophthalmo (Ophthalmology) 10

11.9 TG-Outbreaks (AI for Outbreak Detection) 11

11.10 TG-Psy (Psychiatry) 11

11.11 TG-Radiotherapy (Radiotherapy) 11

11.12 TG-Snake (Snakebite and snake identification) 12

11.13 TG-Symptom (Symptom assessment) 12

11.14 TG-TB (Tuberculosis) 12

11.15 TG-Growth (Child growth monitoring) 13

12 Proposals for new topic areas 13

12.1 MRI Brain Imaging for Parkinson Disease 13

12.2 AI-based Detection of Malaria [Makerere University (Uganda)] 14

12.3 Development AI assisted diagnostic system in coronary computed tomography angiography [ShuKun technology] 14

12.4 AI for the diagnostic of bacterial infection and antimicrobial resistance 15

12.5 Others 15

13 Review / reconfirmation of previous output documents 16

14 Outcomes of this meeting 16

14.1 Outgoing LSs 16

14.2 Call for proposals 16

14.3 Call for Topic Group participation 16

14.4 WG-Experts ToR & Call for experts 16

15 Future work 16

15.1 Schedule of future FG meetings and workshops 16

15.2 Schedule of future WG meetings and workshops 17

15.3 Interim activities (online) 17

16 Promotion and outreach 17

16.1 Communication on working methods by the FG 17

16.2 Promotional activities 17

16.3 Press communication 17

16.4 Funding and partnerships 17

17 A.O.B. 17

18 Closing 17

Annex B Agenda 18

Annex B Documentation 21

Annex C List of participants 26

Annex D Summary of decisions 33

# Opening

The 6th meeting of the ITU/WHO Focus Group on Artificial Intelligence for Heath (FG-AI4H) took place in Zanzibar, Tanzania, 3-5 September 2019. The FG-AI4H chairman, Mr Thomas Wiegand (HHI Fraunhofer, Germany), welcomed the participants and provided a brief introduction on the FG’s working methods, document repository, etc.

# Approval of agenda

Document [F-001](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-001.docx) contained the initial agenda, with the initial timing for document review found in its Annex C. Several updates were issued during the meeting, the final version being found in [R3](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-001-R03.docx).

# [Documentation and allocation](#AnnexC)

The document list and allocation was also found in the agenda document, [F-001](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-001.docx). Annex B listed the complete documentation.

# IPR

The IPR statement as per WTSA Resolution 1 was read (F-001 Annex C) and no affirmative replies were received.

# Management updates

The following updates were made to the FG management at this meeting:

* Mrs Manjula Singh (ICMR, India) was appointed as vice-chair of the FG-AI4H.
* Mr Chandrashekar Ranga (CDSCO, India) was appointed as vice-chair of WG-RC

# Approval of Meeting E outcomes and updates

The FG-AI4H chairman introduced the report of meeting E and the one output document, as follows:

* [E-101](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-E-101.docx): Meeting Report
* [E-102](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-E-102.docx): Updated call for Proposals: use cases, benchmarking, and data

Both documents were noted and approved.

# Outcome of the workshop

Document [F-002](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-002.pptx) contained the summary of the [Sixth ITU/WHO Workshop](https://itu.int/en/ITU-T/Workshops-and-Seminars/ai4h/201909/Pages/programme.aspx) on "Artificial Intelligence for Health.

The moderators of Sessions 2, 3, 4 (Naomi Lee, Manjula Singh, Shan Xu, respectively) introduced highlights of the various sessions at the workshop on 2 September. The meeting thanked Ms Monique Kuglitsch for the excellent coordination of the organization of the workshop programme.

# Review of incoming LSs

Several incoming LSs were reviewed as follows.

## FG-DLT

[FGAI4H-F-025](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-025.docx), [FGAI4H-F-026](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-026.docx), [FGAI4H-F-028](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-028.docx) were noted. The FG on Distributed Ledger Technologies (including blockchain) studied the application of DLTs in various ICT use cases and concluded its activities in July 2019. The latter document points to the deliverables produced by the FG, which will be further considered mainly by ITU-T Study Groups 16 (Multimedia) and 17 (Security). It is felt that the FG-DLT deliverables are not directly applicable to the current work of the FG-AI4H.

## FG-DPM

[FGAI4H-F-027](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-027.docx) from the ITU-T FG on Data Processing Management was noted. The FG concluded its activities and made available its deliverables. The chairs of the working groups on Data and AI solution assessment methods (WG-DAISAM) and Data and AI solution handling (WG-DASH) were invited to check the deliverables, as they may be useful for the guideline documents on data they are preparing.

## ITU-T SG17

[FGAI4H-F-023](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-023.docx) from ITU-T SG17 (Security) was noted. This liaison statement provides an update from SG17 on the workshop on AI, ML and security it organized in September 2018, shares some interesting material concerning security for AI and ML, and invites continued collaboration with SG17. The chairs of the WG-DAISAM and WG-DASH were invited to check attachment 2 of this LS, that refer to security aspects of data.

1. It was agreed to prepare a reply LS to ITU-T SG17 pointing to the lack of standards defining homomorphic encryption and of respective libraries. This was reviewed by the meeting as in [FGAI4H-F-040](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-040.docx).

## JCA-IoT and SC&C

The LS in [FGAI4H-F-024](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-024.docx) was noted.

## JTC 1/SC 42

The LS from JTC 1/SC 42 in [FGAI4H-F-019](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-019.docx) was reviewed. SC42 addresses AI and is building a roadmap of activities and is asking for use cases. It was agreed that a reply LS would be produced. Pat Baird drafted the reply as seen in [FGAI4H-F-041](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-041.docx).

1. It was agreed to send a reply LS to JTC1/SC42 after a one-week review period for comments via the mailing list. Comments from the topic drivers of TG-Symptoms and TG-Outbreak were sought in respect to the two annexes in the document.

# Working Group updates

## Data and AI solution assessment methods (WG-DAISAM)

Chair and vice-chair Pat Baird and Luis Oala introduced the progress of the WG-DAISAM.

[FGAI4H-F-021](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-021.docx) (ToR, approved by correspondence) was noted.

[FGAI4H-F-032](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-032.docx) (Quality Criteria: Regulatory Synthesis and TG-Questionnaire) was introduced (PowerPoint set in A01).

Tension between IPRs and data availability. Some groups are more conservative and do not want to disclose their data.

The document could be restructured in data for developers and data for solution submitters.

FG Chair asked whether the FG should consider creating a WG for clinical evaluation for AI4H solutions, and there was support for the idea; see further in §9.7.

1. It was agreed that the WG-DAISAM would progress its work on the Quality Criteria questionnaire and if it becomes mature in the interim period, it would be submitted for approval in the mailing list (procedure detailed in E-101).

## Data and AI solution handling (WG-DASH)

The Chair and vice chair are Marc Lecoultre and Ferhat Kerif.

The meeting noted the ToR for the WG-DASH in [FGAI4H-F-022](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-022.docx), which was approved by correspondence in the interim period.

WG-DASH chair Mr Marc Lecoultre introduced [FGAI4H-F-034](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-034.docx) with the latest draft of the process description for data and AI solution handling. The CrowdAI online platform is being tested for TG-Snake. It was noted that the benchmarking tool allows to run code without disclosure of trade secrets used for the implementation of an application.

Marc also revisited the current reference FG-AI4H data acceptance and handling policy document, which is found in [D-103](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-D-103.docx). A number of issues were highlighted, e.g. how computation on data can be done; homomorphic encryption has the potential to allow computations to be done in the encrypted space, however there are no standardized tools and libraries that could be used. This aspect was addressed in the LS reply to ITU-T SG17, see §8.3.

1. It was agreed to issue an updated data acceptance policy document D-103 as output of this meeting (F-103). It will be circulated before posting.

## Operations (WG-O)

The WG-Operations chair (Markus Wenzel) gave an overview of operational aspects. He thanked Monique Kuglitsch for the research work to identify relevant speakers for the workshop this week.

He prepared with the VC of WG-DAISAM a Draft for online collaboration tools, rules and guidelines found in [FGAI4H-F-037](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-037.docx). In this draft, a set of tools are suggested, as well as a set of corresponding rules for online collaboration, which is a major opportunity for carrying forward work in between meetings and for global participation in the focus group, considering time and financial constraints. A diagram illustrates the various areas of work of the FG (test data evaluation, model evaluation, etc.). Guidelines accompany these tools and rules and summarize the overall process of the focus group. He asked the participants to experiment with it and provide feedback.

1. It was agreed to circulate [FGAI4H-F-037](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-037.docx) "Draft for online collaboration tools" for approval (two-week period) as output for this meeting.
2. ITU was requested to implement the missing SharePoint features to enable the online work by the TGs and WGs. Simão agreed to follow up, suggested to use an active TG as prototype, e.g. TG-Symptoms.
3. It was agreed to issue an updated version of the "Call for Proposals: Use Cases, Benchmarking and Data" document (F-102). The WG-O chair kindly agreed to undertake the update.

## Regulatory considerations on AI for health (WG-RC)

The chair of the WG on Regulatory Considerations (Naomi Lee) provided updates of the work of the WG as found in [FGAI4H-F-038](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-038.pptx).

The WG was created in view of the current situation:

* Guidelines of general regulatory consideration that AI developers can use when developing AI tools are emerging, but there is no international consensus yet.
* Basic regulatory principles are not typically considered by AI developers which may slow the progress of a potentially promising tools.

The WG plans to work towards the following goals:

* To develop a non-binding, high-level, and useful mapping of what AI developer should keep in mind and consider in their development process - if regulatory review will be needed at some point.
* To improve awareness of regulators of the FG-AI4H work.
* To build regulatory considerations into the FG-AI4H evaluation process.

The WG chair asked for help in identifying / contacting relevant health authorities in Africa to join the WG.

There was a question on what regulators meant here (e.g. ethical clearance committees, etc). It was clarified that here it was meant to have medical device regulators such as FDA on board.

1. A new vice-chair was nominated, Mr Chandrashekar Ranga (Central Drugs Standard Control Organisation, CDSCO, India).

## Health requirements (WG-HR)

The WG is chaired by Laragh Gollogly (WHO) and Ramesh Krishnamurthy (WHO). No updates were provided at this meeting.

There was a discussion on considering the working group activities as concluded.

1. It was decided that the WG-HR co-chairs will be contacted to see if they see a need to continue the activities, otherwise it will be closed.

## Experts (WG-Experts)

[FGAI4H-F-036](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-036.docx) + [A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-036-A01.docx) + [A02](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-036-A02.docx) + [A03](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-036-A03.pptx) (WG-Experts, proposed ToR; draft application and conflict of interest forms)

The set of documents was introduced by Monique Kuglitsch. The idea to create a WG on experts was discussed in Geneva and supported. The FG management developed the ToR for the WG-Experts in F-036 and its attachments, that would provide experts which would monitor the activities of TGs to ensure that the actions / decisions are fair e.g. not biased to favour algorithm proponents that are participating in a particular TG.

1. It was agreed that the ToR for the WG-Experts is mature, but that it would be submitted to the reflector for a 2-week consultation and approval.

## Potential new WGs

The idea of a separate group on mental health was not supported at the moment, as the FG has TG-Psychiatry, albeit it does not cover currently the whole set of mental diseases. Proposals to cover additional areas in this TG are welcome.

Interest was expressed at the meeting to create new working groups, interested experts were invited to contact the FG management. Drafting of the terms of reference will be coordinated as follows:

* WG on clinical evaluation – Vishnu Rao (ICMR, India)
* WG on global and public health – Nada Malou (Médecins Sans Frontières) and Robert Koch Institute
* WG on ethics – Ally Salim Jr (Inspired Ideas, Tanzania)

1. ToRs for three potential new WGs (WG on clinical evaluation; WG on global and public health; WG on ethics) would need to be elaborated before a decision is taken and the target for creation of such WGs would be the next meeting in India.

Examples of WG ToRs are found in the FG-AI4H home page, [https://itu.int/en/ITU-T/focusgroups/‌ai4h/Pages/wg.aspx](https://itu.int/en/ITU-T/focusgroups/ai4h/Pages/wg.aspx).

# Horizontal and strategic topics

[FGAI4H-F-035](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-035.docx) (AI for universal coverage [mTOMADY]) - A01

mTOMADY is an NGO working since 2011 to improve universal care in Madagascar.

Financial implications for getting medical care. 1 billion people=medical impoverishment. Healthcare professionals may not have information on the finances of a patient prior to administering medical care. Providing affordable access to healthcare is important. mTOMADY promotes the use of mobile money in Africa-cloud-based platform (health wallet) so that people can have access to a financial system (from a patient standpoint). A health wallet (of sorts) can be utilized for hospitals bills (can also be used to request for payments). Data from the project could be made available for sampling (after anonymization).

More than 4000 patients registered- collaboration is ongoing with public healthcare centre.

Avoids service provider uncertainty as payment is provided electronically. Electronic transactions facilitate auditing and tracing impact. It also allows cost reduction.

Data availability: identification (who, how to get information, where identification comes from; relatives/family); financial activity (from where, how transferred, where, when happened, ...); medical data (electronic record: clinical data, etc.). Hope people can provide new use cases that they can apply in their platform.

This project illustrates an interesting use case that can greatly benefit from AI for health applications vetted through a robust benchmarking system.

# Updates to TGs and new proposals

No updates were provided for the following topic groups:

* TG-Cardio (Cardiovascular Risk Prediction) – [Benjamin Muthambi](mailto:brm5@caa.columbia.edu)
* TG-Derma (Dermatology) – [Maria Vasconcelos](mailto:maria.vasconcelos@fraunhofer.pt)
* TG-Histo (Histopathology) – [Frederick Klauschen](mailto:frederick.klauschen@charite.de)
* TG-Psy (Psychiatry) – [Nicholas Langer](mailto:n.langer@psychologie.uzh.ch)
* TG-Radiotherapy (Radiotherapy) – [Zhenzhou (Joe) WU](mailto:joe.wu@biomind.ai)

1. It was agreed to remind TG Drivers that an update of their activities is expected at each FG meeting.
2. It was agreed to check with the TG driver for TG-Radiotherapy ([Zhenzhou (Joe) WU](mailto:joe.wu@biomind.ai)) whether the TG should be closed, due to lack of progress and participation.

## Template updates: TDD, CfTGP

No updates were made to the TDD template in [FGAI4H-C-105](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-C-105.docx), nor to the template for call for topic group participation in [FGAI4H-E-004](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-E-004.docx). Both remain the latest version to be used by topic drivers.

## TG-Cardio (Cardiovascular Risk Prediction)

TG Driver: [Benjamin Muthambi](mailto:brm5@caa.columbia.edu)

CfTGP: [F-005-A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A01.docx)

TDD Update: [FGAI4H-F-006](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-006.docx) (drafted by the secretariat; not yet reviewed)

Contributions: None

No updates were provided at this meeting.

## TG-Cogni (Neurocognitive diseases)

TG Driver: [Marc Lecoultre](mailto:ml@bigps.ch)

CfTGP: [F-005-A02](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A02.docx)

TDD Update: [FGAI4H-F-007](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-007.docx) + [A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-007-A01.pptx)

Contributions: [FGAI4H-F-029](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-029.docx) (see §12.1 for the discussions)

The objective of the TG is early-stage detection and classification of dementia using clinical scores, diagnostic, cognitive measures and biological measures (PET, MRI, fMRI, lab results). No ground truth for Alzheimer's, only postmortem analysis of the brain can confirm. Classification of different dementia types can allow specific treatments to be applied and provide better quality of life to patients.

Progress: Data submitted with datasets from 300 patients that will be available for machine learning. New quantitative and qualitative methods included. Outreach activities:

* Discussions with clinical research groups and hospitals that will be interested to join TG-Cogni. Hope to integrate new groups from Italy and Bulgaria.
* Prof. Alexander Tsiskaridze (neurologist)
* Ivane Javakhishvili Tbilisi State University | TSU · Faculty of Medicine
* Norwegian Ministry of Health and Care Services

Next steps:

* Refine / add new usecases related to neuro-cognitive disorders
* Refine TG description document according to TDD (FGAI4H-C-105)

Contribution [FGAI4H-F-029](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-029.docx) was reviewed under §12.1 , see that clause for discussions and agreed follow up.

## TG-Derma (Dermatology)

TG Driver: [Maria Vasconcelos](mailto:maria.vasconcelos@fraunhofer.pt)

CfTGP: [F-005-A03](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A03.docx)

TDD Update: [FGAI4H-F-008](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-008.docx)

Contributions: None

No updates were provided at this meeting, [FGAI4H-F-008](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-008.docx) is the same document as provided for meeting E, FGAI4H-E-011.

## TG-DiagnosticCT (Volumetric chest computed tomography)

TG Driver: [Kuan Chen](mailto:ckuan@infervision.com)

CfTGP: [F-005-A04](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A04.docx)

TDD Update: [FGAI4H-F-009](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-009.docx)

Contributions: None

Presented by Gu Jun on behalf of Kuan Chen.

Updates were made to several areas of the TDD, in particular

* AI Input Data Structure and Output Data Structure
* Test Data Labels
* Score and Metrics
* Available Public Data and Undisclosed Test Data Set Collection
* Reporting Methodology

## TG-Falls (Falls among the elderly)

TG Driver: [Inês Sousa](mailto:ines.sousa@fraunhofer.pt)

CfTGP: [F-005-A05](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A05.docx)

TDD Update: [FGAI4H-F-010](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-010.docx) + [A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-010-A01.pptx)

Contributions: None

The TG driver briefed on the objectives of TG-Falls. Analyse movement of people and collecting data to predict the risk of fall. A very detailed protocol is being developed. Undisclosed annotated data received for 403 persons in Portugal is available.

TG Driver asked for participation with data and/or longitudinal studies on the effects of aging and falls.

## TG-Histo (Histopathology)

TG Driver: [Frederick Klauschen](mailto:frederick.klauschen@charite.de)

CfTGP: [F-005-A06](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A06.docx)

TDD Update: [FGAI4H-F-011](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-011.docx)

Contributions: None

No updates were provided at this meeting. [FGAI4H-F-011](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-011.docx) is the same document as seen in meeting E, for easier future reference.

## TG-Ophthalmo (Ophthalmology)

TG Driver: [Arun Shroff](mailto:arunshroff@gmail.com)

CfTGP: [F-005-A07](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A07.docx)

TDD Update: [FGAI4H-F-012](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-012.docx) + [A01-R01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-012-A01-R01.pptx)

Contributions: [FGAI4H-F-020](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-020.docx) (DRNet)

The TG Driver provided a background to the TG activities that currently cover diabetic retinopathy, age related macular degeneration, glaucoma and pathological myopia. Two classifications considered, binary or multi-class.

Mrs [Cova Bascaran Fanego](mailto:Covadonga.Bascaran@lshtm.ac.uk) (London School of Hygiene & Tropical Medicine) introduced [FGAI4H-F-020](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-020.docx) with a description of the DR-NET project.

**Abstract:** The Diabetic Retinopathy Network (DR-NET) is a network of Diabetic Retinopathy screening programmes in low- and middle-income countries (LMICs): 18 Africa; 4 Caribbean; 5 Pacific; 1 India; 1 China. Diabetic retinopathy remains the prevalent cause of blindness in adult populations worldwide. The aim of the DR-NET is to build capacity for the development of DR systems and services in LMICs. Each member programme is part of the VISION 2020 LINKS Programme, which links UK eye departments with the LMIC eye department. Since 2014, the DR-NET has worked on the development of integrated DR screening and treatment services in the 29 countries. If LMICs are to benefit from the opportunity that AI presents, benchmarking for DR should include data from real life programmes, a variety of cameras and different ethnicities, so that we know that the technology will work accurately in those settings.

DRNet: Vision 2020 links programme-aims at improving eyecare facilities in developing countries. Covers 18 countries worldwide (24 diabetic retinopathy programmes). Has evolved into a research (to implementation) oriented network. Works closely with Ministries of Health.

They seek to be part of the benchmarking process being put in place by the FG-AI4H, in particular for screening of diabetic retinopathy in African countries. Some issues seen are the different types of cameras, different quality of images, variety of ethnicities in Africa that differ from populations used to train existing models; increasing number of solutions without quality assurances. Annotation of existing images remain a task to be followed up. Have offered to share images with the FG-AI4H, depending on the number of images necessary for using in the benchmarking process. There are plans to include additional populations, but that is limited by the available funds.

Datasets available: EyePACS, MIT, DRNet (target 30-40k).

## TG-Outbreaks (AI for Outbreak Detection)

TG Driver: [Martina Fischer](mailto:FischerMa@rki.de)

CfTGP: [F-005-A13](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A13.docx)

TDD Update: [FGAI4H-F-013](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-013.docx) (TDD skeleton) + [A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-013-A01.pptx) (Progress report)

Contributions: None

1. The draft CfTGP for the TG-Outbreaks that was circulated in the interim period was approved by the meeting, and has been published on the [TG page](https://www.itu.int/en/ITU-T/focusgroups/ai4h/Pages/outbreaks.aspx).

The TG Driver explained the background for the work of the TG and the challenge areas. Currently they are calling for participation and she encouraged the experts at the meeting to join the discussions. Also asking WHO for involving the right experts.

One interesting aspect to verified in the future is whether the same models could be generalized for use in different countries. Provide test data with different indicators so that people could implement outbreak detection apps, in different contexts.

Prediction versus detection: will detection algorithms be able to predict outbreaks? Probably yes if enough quality training data exists.

## TG-Psy (Psychiatry)

TG Driver: [Nicholas Langer](mailto:n.langer@psychologie.uzh.ch)

CfTGP: [F-005-A08](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A08.docx)

TDD Update: [FGAI4H-F-014](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-014.docx)

Contributions: None

No updates were provided at this meeting. [FGAI4H-F-014](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-014.docx) is the same document as seen in Meeting E, FGAI4H-E-015, for easier future reference.

## TG-Radiotherapy (Radiotherapy)

TG Driver: [Zhenzhou (Joe) WU](mailto:joe.wu@biomind.ai)

CfTGP: F-005-A09 (reserved but not provided by the TG driver)

TDD Update: FGAI4H-F-015 (reserved but not yet provided)

Contributions: None

No updates were provided at this meeting. No versions were developed of the call for topic group participation, nor a TDD document was prepared.

Groups that are not progressing will be considered for closing after two successive meetings without a status report by the topic driver.

## TG-Snake (Snakebite and snake identification)

TG Driver: [Rafael Ruiz](mailto:rafael.ruizdecastaneda@unige.ch)

CfTGP: [F-005-A10](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A10.docx)

TDD Update: [FGAI4H-F-016](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-016.docx)

Contributions: None

Five million snakebites affecting developing countries (five deaths per hour), causing disability and death.

Snake identification remains important for diagnosing snakebites (and administering the correct anti-snakebite venom).

The are several open biodiversity platforms from which relevant data can be derived. Museums are also being approached for data. 16000 images (920 species). Images being harvested from social media (Twitter)

AICrowd platform used for a challenge in the coming months for benchmarking using available secret datasets.

Experts from different domains are involved in the project (for snake identification).

CLEF conference 2019, Lugano- presenting the project. Audience: biologists, zoologists studying bird and snake biology.

Project also involves studying victim behaviour too. In general, communities which are prone to snakebites are aware of the importance of identifying the snakes. It is often also the bystander who might take the picture to help identify the snake.

Often identifying the snake based on just the venom or saliva in the blood can take up to 24 hours. Identifying the snakes prior to administering cure is important in this case.

## TG-Symptom (Symptom assessment)

TG Driver: [Henry Hoffmann](mailto:henry.hoffmann@ada.com)

E-meetings: E-meetings were held, but their reports were not provided to the secretariat.

CfTGP: [F-005-A11](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A11.docx)

TDD Update: [FGAI4H-F-017](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-017.docx) – Presentation: [A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-017-A01.pptx)

Contributions: None

Benchmarking would require information relating to the general patient info, health status.

Wide range of datasets can be explored from clinic/hospitals and also possibly use synthetic data. 9 members in the TG.

MVB: Minimal viable benchmarking- benchmarking pipeline.

Guidelines required for generating data (companies cannot see the data without anonymization). such guidelines need to be sent to the hospitals or clinics.

## TG-TB (Tuberculosis)

TG Driver: [Manjula Singh](mailto:drmanjulasb@gmail.com)

CfTGP: [F-005-A12](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A12.docx)

TDD Update: [FGAI4H-F-018](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-018.docx)

Contributions: None

Biggest killer (infectious diseases)-50% of the cases are in BRICS. Most cases go undiagnosed. Existing detection practices are limited.

Early diagnosis can help immensely

AI-based diagnoses for TB (can be used for both detection as well as diagnosis)

Limited number of specialists in remote areas. AI can help in such cases (radiographic detection).

Mobile vans are being used for diagnosis-CBNAAT and Xrays. However, not possible to have machines in all remote areas. AI can promote the timely detection of TB-lifesaving.

Benchmarking data must be representative of the world (100% specificity)- there is a need for training and testing datasets. Currently, none exist.

* False negatives issue (among existing data)
* Input chest X-ray (gold standard)
* Model to be based on several stages
* Available datasets: 70,000 X-ray images available from S. India

## TG-Growth (Child growth monitoring)

Due to inactivity, there was agreement at the meeting that this TG should be closed until interested experts are identified. Dr [Hafsa M. Mitwa](mailto:hafsa.m.mwita@gmail.com), Zanzibar University, expressed interest to drive the activity and contacted the WG-O chair for the initial activities.

# Proposals for new topic areas

## MRI brain imaging for Parkinson disease

[FGAI4H-F-029](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-029.docx) [Ontario Brain Institute]

**Abstract:** The goal is to create a state-of-the-art protocol for imaging Neurodegenerative Disease using 3T magnetic resonance imaging (MRI) scanners that will be capable of producing key clinical biomarkers for better diagnosing patients and following changes longitudinally. This will require collecting not only imaging data but also clinical data. Our target is to collect 5,000 healthy controls and 5,000 Parkinson’s (PD) data sets using the state-of-the-art protocol and this normative data will be used as a public database that can be leveraged by AI and any other relevant software analysis tools to study the aging human brain. Our proof of value will focus on using this protocol and data with a focus on Parkinson’s disease (PD) where we will develop AI algorithm to segment the deep grey matter, mapping iron in the substantia nigra and mapping neuromelanin in the midbrain and spine. The latter two measures can potentially predict who has PD and help discriminate different types of movement disorders.

Presented by Mark Haacke, the proposal is based on a multi-contrast image acquisition technique.

This area seems to be related to TG-Cogni, so adding this use case to the TG-Cogni should be explored.

1. It was agreed that the TG-Cogni driver will organize subsequent calls with the authors of to clarify whether the MRI Brain Imaging for Parkinson Disease activity proposed in F-039 would be a good match within TG-Cogni.

## AI-based detection of malaria [Makerere University (Uganda)]

[FGAI4H-F-030](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-030.docx) (Makerere University, Uganda) presented by Rose Nakasi.

**Abstract:** Malaria is one of the largest endemic diseases in the Sub Saharan Africa. In Low developed countries (LDCs), the scourge is further buttressed by the lack of enough skilled lab technologists in health centers to diagnose the disease using the widely accepted gold standard Microscopy method of diagnosis. Thus the need for reliable diagnosis. This explains the birth of automated malaria diagnosis using Artificial Intelligence. The aim is to harness AI through supervised machine learning to automate the detection of malaria parasites/pathogens in a case study dataset. This method provides fast, accurate and reliable diagnosis solutions. With authorization from the Ministry of Health (MoH), coupled with collaboration of our research Microscopists in Mulago referral Hospital in Uganda, we were able to access datasets of microscopic thick blood smear images with expert labels representing pathogens within an image.

NOTE – there is a complementary presentation given at the workshop, see <https://itu.int/en/ITU-T/Workshops-and-Seminars/ai4h/201909/Documents/Rose_Nakasi_Presentation.pdf>

It is important to have an automated method to diagnose malaria from samples, in order to avoid mistreatments. They have an annotated image dataset that can used to enable this project. Image is captured with a mobile phone. Annotation is done by skilled lab technicians working on public hospitals. Information about patient is not retained, as only the images without identification are provided. If the new TG is created, they believe data from more labs can be obtained. Artefacts like dust and the use of different staining in samples need to be addressed. Need to identify what kind of phone and the environment used to acquire images.

Molecular approach could be possible if there is access to the samples.

Acquisition protocol in presentation, use 3D-printed sets.

Any recommended cameras? Resolution, format? Still under study.

There is an intersection with the TG Symptoms as malaria symptoms are also considered. It is felt there is little overlap with TG-Histo, but the malaria detection topic is sufficiently wide to merit a dedicated activity within the FG.

1. The group supported the proposal to create a new topic group on malaria detection, with Rose Nasaki (Makerere University, Uganda) as TG driver.

## Development AI assisted diagnostic system in coronary computed tomography angiography [ShuKun technology]

[FGAI4H-F-031](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-031.docx) (Shukun Technology) presented by Ning (Nathan) Guo. Presentation: [A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-031-A01.pptx)

**Abstract:** Coronary computed tomographic angiography (CCTA) is a sensitive and widely used non-invasive method for the detection and exclusion of obstructive coronary artery disease (CAD). CCTA remains challenging because of the required ECG-synchronized data acquisition, advanced post-processing and interpretation. These challenges limit its application in primary hospitals. Recently, an AI assisted diagnostic system of CCTA was developed, the main benefit of this system for clinic included automatic extraction of vessels from CTA images by a deep learning method, automatic recognition of coronary artery segments according to SCCT standard, automatic diagnosis of stenosis. Currently this system has been used in about twenty Level-3 hospitals in China. To evaluate its diagnostic performance, a national wide multi-centre trial was carried out, over one thousand patients with CAD from 33 centres who underwent both CCTA and coronary angiography (CAG) examinations were included. The initial result based on 400 randomly selected patients showed that AI yielded a 53%- and 59%-time reduction on image reconstruction and diagnostic steps respectively. For detection of obstructive coronary stenosis at threshold of 50% at artery level, the system can achieve compatible diagnostic accuracy with experienced radiologists in Level-3 hospital in China.

Misdiagnoses by technician mistake or image artefacts. Multi institution, national study with patients undergoing CT (invasive) and non-invasive analyses to improve quality of diagnoses. Approach shows a great potential.

1. It was agreed to undertake this work as a sub-group within TG-Cardio, with the leadership of Ning (Nathan) Guo, to consider AI assisted diagnostic system in coronary computed tomography angiography.

## AI for the diagnostic of bacterial infection and antimicrobial resistance

[FGAI4H-F-033](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-033.docx) (Médecins Sans Frontières) presented by Nada Malou

**Abstract:** The threat of antimicrobial resistance (AMR) is today recognized as major public health challenge and global health priority as stated by the UN General assembly in 2016. In 2014. Oneil reports estimated that 10 million deaths will be attributable to antimicrobial resistance in 2050. Lack of access to reliable microbiology laboratories and diagnostic tools is one of the drivers of antimicrobial resistance. This is due to several factors including: the absence of essential infrastructure, the lack of laboratory supplies and equipment’s, the absence of maintenance system for equipment’s and finally the lack of trained human resources in microbiology. The lack of human resources is a key element and the response toward this issue includes the need for the development of simplified diagnostic tests both to perform and to interpret. Artificial intelligence could support the lack of trained human resources in the key steps of diagnostic of bacterial infection: from Gram staining reading and identification of bacteria based on their shape, to the identification of colony shapes on different culture media to finally interpret in accurate way results of antimicrobial susceptibility testing through the identification of resistance mechanism identified by the different shapes that can be observed on an antibiogram.

Years of overuse have led to an alarming increase of anti-microbial resistance. Introduction of new molecules is slow and it is important to rationalize their use to reduce misuse / overuse of antibiotics. Their misuse / overuse can be reduced with appropriate screening tools, and can provide a diagnostics and surveillance in LMICs. MSF has developed an app to help advise a clinician on the type of drug to prescribe, also use images of Petri dishes with an antimicrobial culture. Currently, the image processing / pattern recognition used does not take advantage of AI techniques. The hope is that AI techniques could help improve precision of the tool.

Data collected from hospitals e.g. in Jordan and France, and they expect to have 100000 pictures by the end of 2019.

Molecular techniques can be used, but are not so useful as the only way for a clinician to know whether a drug is effective

Image compression is an issue, beyond the device used. How to configure apparatus (lighting, position, etc), compression scheme, etc.

Risk of contamination of smartphone.

1. It was agreed to create a new TG-Bacteria on Diagnoses of bacterial infection and AMR, led by Nada Malou (Médecins Sans Frontières, France).

## Others

There was a brief discussion on whether there should be a limit to how many TGs the FG could have, but this remains an open question.

# Review / reconfirmation of previous output documents

The following output documents from previous meetings were reaffirmed without changes:

* [C-104](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-C-104.docx): Thematic classification scheme
* [FG-AI4H Whitepaper](https://www.itu.int/en/ITU-T/focusgroups/ai4h/Documents/FG-AI4H_Whitepaper.pdf) – It was noted that work is needed on the white paper to reflect the current updates.

It was agreed to re-issue the following documents as outputs of this meeting (§14):

* [F-103](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-103.docx) – Updated FG-AI4H data acceptance and handling policy: revise [D-103](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-D-103.docx) as per the discussions in §9.2. Document will be circulated for review in the FG mailing list.
* [F-102](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-102.docx) – The call for proposals: use cases, benchmarking, and data will be editorially updated based on [E-102](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-E-102.docx) and posted to prompt inputs at Meeting G (New Delhi).

# Outcomes of this meeting

## Outgoing LSs

Two outgoing LSs were prepared at this meeting:

* Reply LS to ITU-T SG17 (see §8.3) in F-040 was approved.
* Reply LS to JTC1 SC42 (see §8.5) in F-041 was approved with a one week editing period (for comments from the mailing list).

Report from the [ITU-T LS database](https://www.itu.int/net/itu-t/ls/ols.aspx?from=7952&after=2019-09-01&before=2019-09-06):

| oLS | Title | For action to | For info. to | Deadline | Related to iLS |
| --- | --- | --- | --- | --- | --- |
| [FG AI4H-LS2](https://www.itu.int/ifa/t/2017/ls/fgai4h/sp16-fgai4h-oLS-00002.docx) | LS/r on request for relevant AI Use Cases ([ISO/IEC JTC1/SC42-20190531](https://www.itu.int/ifa/t/2017/ls/isoiecjtc1sc42/sp16-iso_iecjtc1_sc42-iLS-00003r1.zip)) | ISO/IEC JTC1/SC42 | SG16 | 2019-11-01 | [FGAI4H-F-019](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-019.docx) |
| [FG AI4H-LS1](https://www.itu.int/ifa/t/2017/ls/fgai4h/sp16-fgai4h-oLS-00001.docx) | LS/r on AI/ML and security ([SG17-LS142](https://www.itu.int/ifa/t/2017/ls/sg17/sp16-sg17-oLS-00142.zip)) | SG17 | SG16 | 2020-07-01 | [FGAI4H-F-023](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-023.docx) |

## Call for proposals

The meeting agreed with an updated call for proposals: use cases, benchmarking, and data to be issued as [F-102](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-102.docx) after a 2-week editorial review of [E-102](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-E-102.docx).

## Call for Topic Group participation

The template updated at a previous meeting was felt to be in good order and should be reused, see [FGAI4H-C-105](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-C-105.docx) (from the Lausanne meeting).

## WG-Experts ToR & Call for experts

It was agreed to circulate the ToRs for the WG-Experts and call for experts in [FGAI4H-F-036](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-036.docx) and its attachments [A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-036-A01.docx) and [A02](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-036-A02.docx) to a two-week consultation and approval period.

# Future work

## Schedule of future FG meetings and workshops

The information in [F-003-R1](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-003-R01.docx) was reviewed and noted. Meeting hosts after the Brasilia meeting in January 2020 are invited, in particular March 2020.

An FG-AI4H meeting is expected to be in Geneva co-located with AI for Good in the week of 4-8 May 2020.

## Schedule of future WG meetings and workshops

WR-DASH will hold a meeting and workshop in December in Berlin (two days), there will be remote participation for the meeting. For preliminary information, see found in [FGAI4H-F-039](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-039.docx). Final details will be announced on the FG-AI4H mailing list

## Interim activities (online)

All online activities planned will be documented in the FG-AI4H collaboration site calendar, <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Lists/Calendar/calendar.aspx>.

TG and WG chairs are requested to keep the secretariat informed, so the calendar is kept updated and potential conflicts are avoided.

# Promotion and outreach

## Communication on working methods by the FG

It was noted that a briefing on the working methods of the FG should be provided on a regular basis, e.g. a webinar before each meeting. Another possibility would be to record a video that could be reused at the participant's discretion.

1. Elaine Nsoesie (Boston University School of Public Health) volunteered to draft an onboarding document.

## Promotional activities

Management was given discretion for promotion.

It was suggested to produce AI4G shirts as promotional items.

## Press communication

No particular aspects were raised.

## Funding and partnerships

The meeting was informed of the grant provided by the Botnar Foundation to increase participation in low resource settings, focusing mainly on the travel grants for experts coming from LMICs. A set of guidelines have been prepared and are accessible from the FG-AI4H website.

# A.O.B.

There was a discussion on hold a virtual meeting on TG updates and management updates before the India meeting.

# Closing

The chairman expressed his thanks for the excellent meeting, results and participants. He thanked the participants, chairs, management and the secretariat for the long hours and intense participation.

The meeting adjourned on 4 September 2019, 1800 hours.

Annex B  
Agenda

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | Related Documents |
| 1 | Opening | | |  |
| 2 | Approval of agenda | | | F-001 (Agenda);  Initial timing: F-001 Annex C |
| 3 | Documentation and allocation | | | F-001 (Agenda; Chair);  Annex B (Documentation) |
| 4 | IPR | | | F-001 Annex A |
| 5 | Management updates | | |  |
|  | | | Vice-chairs |  |
|  | | | WGs |  |
| 6 | Approval of Meeting E outcomes and updates | | | [E-101](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-E-101.docx): Meeting Report  [E-102](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-E-102.docx): Updated call for Proposals: use cases, benchmarking, and data |
| 7 | Outcome of the workshop | | | [F-002](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-002.pptx) (Workshop Summary; Chair) |
| 8 | Review of incoming LSs | | |  |
|  | | | FG-DLT | [FGAI4H-F-025](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-025.docx), [FGAI4H-F-026](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-026.docx), [FGAI4H-F-028](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-028.docx) |
|  | | | FG-DPM | [FGAI4H-F-027](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-027.docx) |
|  | | | ITU-T SG17 | [FGAI4H-F-023](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-023.docx) |
|  | | | JCA-IoT and SC&C | [FGAI4H-F-024](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-024.docx) |
|  | | | JTC 1/SC 42 | [FGAI4H-F-019](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-019.docx) |
|  | | | Others? |  |
| 9 | Working Group updates | | |  |
| a | | | Data and AI solution assessment methods (WG-DAISAM) [Pat Baird; Luis Oala] | [FGAI4H-F-021](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-021.docx) (ToR, approved by correspondence)  [FGAI4H-F-032](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-032.docx) (Quality Criteria: Regulatory Synthesis and TG-Questionnaire) |
| b | | | Data and AI solution handling (WG-DASH) [Marc Lecoultre; Ferhat Kerif] | [FGAI4H-F-022](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-022.docx) (ToR, approved by correspondence)  [FGAI4H-F-034](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-034.docx) (Draft Process description for data and AI solution handling) |
|  | | | Operations (WG-O) [Markus Wenzel] | [FGAI4H-F-037](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-037.docx) (Draft for online collaboration tools, rules and guidelines) |
|  | | | Regulatory considerations on AI for health (WG-RC) [Naomi Lee] | [FGAI4H-F-038](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-038.pptx) (Status update) |
|  | | | Health requirements (WG-HR) [Laragh Gollogly (WHO); Ramesh Krishnamurthy (WHO)] |  |
| 10 | Horizontal and strategic topics | | | [FGAI4H-F-035](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-035.docx) (AI for universal coverage [mTOMADY])  [FGAI4H-F-036](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-036.docx) + [A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-036-A01.docx) + [A02](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-036-A02.docx) + [A03](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-036-A03.pptx) (WG-Experts, proposed ToR; draft application and conflict of interest forms) |
| 11 | Updates to TGs and new proposals | | |  |
|  | | Template updates: TDD, CfTGP | |  |
|  | | TG-Cardio (Cardiovascular Risk Prediction)  [[Benjamin Muthambi](mailto:brm5@caa.columbia.edu)] | | CfTGP: [F-005-A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A01.docx)  TDD Update: [FGAI4H-F-006](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-006.docx)  Contributions: None |
|  | | TG-Cogni (Neurocognitive diseases)  [[Marc Lecoultre](mailto:ml@bigps.ch)] | | CfTGP: [F-005-A02](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A02.docx)  TDD Update: [FGAI4H-F-007](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-007.docx) + [A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-007-A01.pptx)  Contributions: |
|  | | TG-Derma (Dermatology)  [[Maria Vasconcelos](mailto:maria.vasconcelos@fraunhofer.pt)] | | CfTGP: [F-005-A03](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A03.docx)  TDD Update: [FGAI4H-F-008](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-008.docx)  Contributions: None |
|  | | TG-DiagnosticCT (Volumetric chest computed tomography)  [[Kuan Chen](mailto:ckuan@infervision.com)] | | CfTGP: [F-005-A04](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A04.docx)  TDD Update: [FGAI4H-F-009](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-009.docx)  Contributions: None |
|  | | TG-Falls (Falls among the elderly)  [[Inês Sousa](mailto:ines.sousa@fraunhofer.pt)] | | CfTGP: [F-005-A05](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A05.docx)  TDD Update: [FGAI4H-F-010](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-010.docx) + [A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-010-A01.pptx)  Contributions: None |
|  | | TG-Histo (Histopathology)  [[Frederick Klauschen](mailto:frederick.klauschen@charite.de)] | | CfTGP: [F-005-A06](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A06.docx)  TDD Update: [FGAI4H-F-011](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-011.docx)  Contributions: None |
|  | | TG-Ophthalmo (Ophthalmology)  [[Arun Shroff](mailto:arunshroff@gmail.com)] | | CfTGP: [F-005-A07](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A07.docx)  TDD Update: [FGAI4H-F-012](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-012.docx) + [A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-012-A01.pptx)  Contributions: [FGAI4H-F-020](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-020.docx) (DRNet) |
|  | | TG-Outbreaks (AI for Outbreak Detection) [[Martina Fischer](mailto:FischerMa@rki.de)] | | CfTGP: [F-005-A13](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A13.docx)  TDD Update: [FGAI4H-F-013](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-013.docx) + [A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-013-A01.pptx)  Contributions: None |
|  | | TG-Psy (Psychiatry)  [[Nicholas Langer](mailto:n.langer@psychologie.uzh.ch)] | | CfTGP: [F-005-A08](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A08.docx)  TDD Update: [FGAI4H-F-014](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-014.docx)  Contributions: None |
|  | | TG-Radiotherapy (Radiotherapy)  [[Zhenzhou (Joe) WU](mailto:joe.wu@biomind.ai)] | | CfTGP: F-005-A09  TDD Update: FGAI4H-F-015  Contributions: None |
|  | | TG-Snake (Snakebite and snake identification)  [[Rafael Ruiz](mailto:rafael.ruizdecastaneda@unige.ch)] | | CfTGP: [F-005-A10](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A10.docx)  TDD Update: [FGAI4H-F-016](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-016.docx)  Contributions: None |
|  | | TG-Symptom (Symptom assessment)  [[Henry Hoffmann](mailto:henry.hoffmann@ada.com)] | | E-meetings:  CfTGP: [F-005-A11](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A11.docx)  TDD Update: [FGAI4H-F-017](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-017.docx) + [A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-017-A01.pptx)  Contributions: None |
|  | | TG-TB (Tuberculosis)  [[Manjula Singh](mailto:drmanjulasb@gmail.com)] | | CfTGP: [F-005-A12](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A12.docx)  TDD Update: [FGAI4H-F-018](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-018.docx)  Contributions: None |
|  | | TG-Growth (Child growth monitoring)  [*Vacant*] | | None |
| 12 | Proposals for new topic areas | | |  |
|  | | MRI Brain Imaging for Parkinson Disease [Ontario Brain Institute] | | [FGAI4H-F-029](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-029.docx) |
|  | | AI-based Detection of Malaria [Makerere University (Uganda)] | | [FGAI4H-F-030](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-030.docx) |
|  | | Development AI assisted diagnostic system in coronary computed tomography angiography [ShuKun technology] | | [FGAI4H-F-031](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-031.docx) |
|  | | AI for the diagnostic of bacterial infection and antimicrobial resistance [Médecins Sans Frontières] | | [FGAI4H-F-033](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-033.docx) + [A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-033-A01.pptx) |
|  | | Others? | |  |
| 13 | Review / reconfirmation of previous output documents | | | [E-102](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-102.docx): Updated call for proposals: use cases, benchmarking, and data  [D-103](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-D-103.docx): Updated FG-AI4H data acceptance and handling policy  [C-104](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-C-104.docx): Thematic classification scheme  [FG-AI4H Whitepaper](https://www.itu.int/en/ITU-T/focusgroups/ai4h/Documents/FG-AI4H_Whitepaper.pdf)  Others? |
| 14 | Outcomes of this meeting | | | a) Outgoing liaison statements  [FGAI4H-F-040](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-040.docx) (LS/r to SG17)  [FGAI4H-F-041](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-041.docx) (LS/r to JTC1/SC42)  b) Call for proposals  c) Call for Topic Group participation  [d) WG-Experts ToR & Call for experts] |
| 15 | Future work | | |  |
|  | | Schedule of future FG meetings and workshops | | [F-003-R1](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-003-R01.docx) |
|  | | Work plan and timeline | |  |
|  | | Interim activities (online) | |  |
| 16 | Promotion and outreach | | |  |
|  | | Promotional activities | |  |
|  | | Press communication | |  |
|  | | Funding and partnerships | |  |
| 17 | A.O.B. | | | [F-039](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-039.docx): DASH & DAISAM Workshop (Dec. 2019) |
| 18 | Closing | | |  |

Annex B  
Documentation

| Name | Title | | Source | Note |
| --- | --- | --- | --- | --- |
| [FGAI4H-F-001-R03](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-001-R03.docx) | Agenda and documentation of the FG-AI4H meeting (Zanzibar, 3-5 September 2019) | | FG-AI4H Chairman |  |
| [FGAI4H-F-002](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-002.pptx) | Summary slides - Sixth ITU/WHO Workshop on "Artificial Intelligence for Health" (Zanzibar, 2 September 2019) | | TSB |  |
| [FGAI4H-F-003-R01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-003-R01.docx) | Schedule of future FG meetings (as of 2019-09-04) | | FG-AI4H Chairman |  |
| [FGAI4H-F-004](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-004.docx) | FG-AI4H fellowship criteria | | FG-AI4H Secretariat |  |
| [FGAI4H-F-005](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005.docx) | Updated calls for participation issued by the various TGs | | TSB |  |
| [FGAI4H-F-005-A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A01.docx) | | Call for AI for Health Topic Group Participation: AI for Health Topic Group: Cardiovascular Disease (CVD) Risk Prediction | TG-Cardio topic driver |  |
| [FGAI4H-F-005-A02](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A02.docx) | | Call for Topic Group Participation: Standardized benchmarking of AI against neuro-cognitive diseases | TG-Cogni Driver |  |
| [FGAI4H-F-005-A03](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A03.docx) | | Call for Topic Group Participation: AI for Dermatology | TG-Derma Topic Driver |  |
| [FGAI4H-F-005-A04](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A04.docx) | | Updated Call for Topic Group Participation: AI for Volumetric Chest Computed Tomography | TG-DiagnosticCT Topic Driver |  |
| [FGAI4H-F-005-A05](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A05.docx) | | Call for Topic Group Participation: Standardized benchmarking of AI to prevent falls among the elderly | TG-Falls Driver |  |
| [FGAI4H-F-005-A06](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A06.docx) | | Call for Topic Group Participation: AI for Histopathology | TG-Histo topic driver |  |
| [FGAI4H-F-005-A07](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A07.docx) | | Updated Call for Topic Group Participation: Standardized benchmarking of AI for Ophthalmology (Retinal Imaging Diagnostics) | TG-Ophtalmo Driver |  |
| [FGAI4H-F-005-A08](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A08.docx) | | Call for Topic Group Participation: Standardized benchmarking of AI in Psychiatry | TG-Psy Driver |  |
| FGAI4H-F-005-A09 (Reserved but not submitted) | | Call for Topic Group Participation: TG-Radiology | TG-Radiology Driver |  |
| [FGAI4H-F-005-A10](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A10.docx) | | Call for Topic Group Participation: Standardized benchmarking of “AI for Snakebite and Snake Identification” | TG-Snake Driver |  |
| [FGAI4H-F-005-A11](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A11.docx) | | Updated Call for Topic Group Participation: Standardized benchmarking of "AI-based symptom assessment" | TG-Symptom Driver |  |
| [FGAI4H-F-005-A12](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A12.docx) | | Call for Topic Group Participation: Standardized benchmarking of AI against Tuberculosis | TG-TB topic driver | Updated |
| [FGAI4H-F-005-A13](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-005-A13.docx) | | Draft for a Call for Topic Group Participation: Standardized benchmarking of “AI for Outbreak Detection” | TG-Outbreaks topic driver |  |
| [FGAI4H-F-006](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-006.docx) | TDD draft: TG-Cardio (Cardiovascular disease risk prediction) | | TG-Cardio topic driver |  |
| [FGAI4H-F-007](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-007.docx) | TDD Update: TG-Cogni (Neuro-cognitive diseases) | | TG-Cogni topic driver |  |
| [FGAI4H-F-007-A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-007-A01.pptx) | | TDD Update: TG-Cogni (Neuro-cognitive diseases) - Att.1: Presentation | TG-Cogni topic driver |  |
| [FGAI4H-F-008](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-008.docx) | TDD update: TG-Derma (Dermatology) | | TG-Derma topic driver | Re-loaded |
| [FGAI4H-F-009](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-009.docx) | TDD update: TG-DiagnosticsCT (Volumetric chest computed tomography) | | TG-DiagnosticCT Topic Driver |  |
| [FGAI4H-F-010](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-010.docx) | TDD Update: TG-Falls (Falls among the elderly) | | TG-Falls topic driver |  |
| [FGAI4H-F-010-A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-010-A01.pptx) | | TDD Update: TG-Falls (Falls among the elderly) - Att.1: Presentation | TG-Falls topic driver |  |
| [FGAI4H-F-011](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-011.docx) | TDD Update: TG-Histo (Histopathology) | | TG-Histo topic driver |  |
| [FGAI4H-F-012](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-012.docx) | TDD update: TG-Ophthalmo (Ophthalmology) | | TG-Ophthalmo topic driver |  |
| [FGAI4H-F-012-A01-R01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-012-A01-R01.pptx) | | TDD Update: TG-Ophthalmo (Ophthalmology) - Att.1: Presentation | TG-Ophtalmo topic Driver |  |
| [FGAI4H-F-013](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-013.docx) | TDD progress: TG-Outbreaks topic driver (AI for Outbreak Detection) | | TG- Outbreak Detection |  |
| [FGAI4H-F-013-A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-013-A01.pptx) | | TDD update: Outbreaks (AI for Outbreak Detection) - Att.1: Status update | TG-Outbreaks topic driver |  |
| [FGAI4H-F-014](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-014.docx) | TTD Update: TG-Psy (Psychiatry) | | TG-Psy topic driver |  |
| FGAI4H-F-015 (Reserved but not submitted) | Initial TTD: TG- Radiology (Radiology) | | TG-Radiology topic driver |  |
| [FGAI4H-F-016](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-016.docx) | TDD update: TG-Snake (Snakebite and snake identification) | | TG-Snake topic driver |  |
| [FGAI4H-F-017](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-017.docx) | TDD update: TG-Symptom (Standardized Benchmarking for AI-based symptom assessment) | | TG-Symptom Topic Driver |  |
| [FGAI4H-F-017-A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-017-A01.pptx) | | TDD update: TG-Symptom - Att.1: Presentation | TG-Symptom topic driver |  |
| [FGAI4H-F-018](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-018.docx) | TDD update: TG-TB (Tuberculosis) | | TG-TB topic driver |  |
| [FGAI4H-F-019](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-019.docx) | LS on request for relevant AI Use Cases [from JTC 1/SC 42] | | ISO/IEC JTC1 SC42 WG4 |  |
| [FGAI4H-F-019-A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-019-A01.pdf) | | LS on request for relevant AI Use Cases - Att.1: Draft ISO/IEC TR 24030 "Information technology - Artificial Intelligence (AI) - Use cases" | ISO/IEC JTC1 SC42/WG4 |  |
| [FGAI4H-F-020](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-020.docx) | TG-Ophtalmo: DR-NET (Diabetic Retinopathy Network) | | London School of Hygiene & Tropical Medicine |  |
| [FGAI4H-F-020-A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-020-A01.pptx) | | TG-Ophtalmo: DR-NET (Diabetic Retinopathy Network) - Att.1: Presentation | London School of Hygiene & Tropical Medicine |  |
| [FGAI4H-F-021](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-021.docx) | WG on Data and AI solution assessment methods (WG-DAISAM) – Approved ToRs | | WG-DAISAM Chair |  |
| [FGAI4H-F-022](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-022.docx) | WG on Data and AI Solution Handling (WG-DASH) – Approved ToR | | WG-DASH Chair |  |
| [FGAI4H-F-023](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-023.docx) | LS reply on AI (Artificial Intelligence)/ML (Machine Learning) and security [to ITU-T SG16] | | ITU-T Study Group 17 |  |
| [FGAI4H-F-023-A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-023-A01.docx) | | LS reply on AI/ML and security – Att.1 – Proposed ITU Workshop on AI, ML and security | Chairman SG17 |  |
| [FGAI4H-F-023-A02](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-023-A02.zip) | | LS reply on AI/ML and security – Att.2 – Contribution to transformation studies and CG-xss about New Security Horizons | Symantec Corporation |  |
| [FGAI4H-F-024](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-024.docx) | LS on “Request to update the IoT and SC&C Standards Roadmap and the list of contact points” | | JCA-IoT and SC&C |  |
| [FGAI4H-F-024-A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-024-A01.docx) | | LS on “Request to update the IoT and SC&C Standards Roadmap and the list of contact points”– Att.1: Draft List of contact points for the participating entities | JCA-IoT and SC&C |  |
| [FGAI4H-F-025](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-025.docx) | LS on FG DLT deliverables for review and comments [from FG-DLT] | | FG-DLT |  |
| [FGAI4H-F-025-A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-025-A01.docx) | | LS on FG DLT deliverables for review and comments – Att.1: Updated baseline text: D1.1 - Distributed ledger technology terms and definitions | FG-DLT |  |
| [FGAI4H-F-025-A02](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-025-A02.docx) | | LS on FG DLT deliverables for review and comments – Att.2: Updated baseline text: D2.1 - DLT use cases | FG-DLT |  |
| [FGAI4H-F-025-A03](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-025-A03.docx) | | LS on FG DLT deliverables for review and comments – Att.3: Updated baseline text: D3.1 - Distributed ledger technology reference architecture | FG-DLT |  |
| [FGAI4H-F-025-A04](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-025-A04.docx) | | LS on FG DLT deliverables for review and comments – Att.4: Updated baseline text: D3.2 - Overview of existing platforms and mapping to distributed ledger technology reference architecture | FG-DLT |  |
| [FGAI4H-F-025-A05](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-025-A05.docx) | | LS on FG DLT deliverables for review and comments – Att.5: Updated text of D3.3 - Assessment criteria for DLT platforms | FG-DLT |  |
| [FGAI4H-F-025-A06](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-025-A06.docx) | | LS on FG DLT deliverables for review and comments – Att.6: Updated baseline text: D4.1 - DLT regulatory framework | FG-DLT |  |
| [FGAI4H-F-026](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-026.docx) | LS/r on FG DLT deliverables for review and comments (FGDLT-LS16) [from ITU-T SG5 to FG DLT] | | ITU-T SG5 |  |
| [FGAI4H-F-027](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-027.docx) | LS on deliverables of ITU-T Focus Group on Data Processing and Management to support IoT and Smart Cities & Communities (FG-DPM), July 2019 [from FG-DPM to ITU-T SG20] | | FG-DPM |  |
| [FGAI4H-F-027-A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-027-A01.docx) | | LS on deliverables of ITU-T FG-DPM to support IoT and Smart Cities & Communities (FG-DPM), July 2019 – Att.1: Final list of deliverables of the FG-DPM, Geneva, 19 July 2019 | Chairman, FG-DPM |  |
| [FGAI4H-F-027-A02](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-027-A02.docx) | | LS on deliverables of ITU-T FG-DPM to support IoT and Smart Cities & Communities (FG-DPM), July 2019 – Att.2: FG-DPM Chairman’s Progress Report (July 2019) | Chairman FG-DPM |  |
| [FGAI4H-F-027-A03](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-027-A03.zip) | | LS on deliverables of ITU-T FG-DPM to support IoT and Smart Cities & Communities (FG-DPM), July 2019 – Att.3 – Deliverables agreed at the FG-DPM meeting, 19 July 2019 | FG-DPM |  |
| [FGAI4H-F-028](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-028.docx) | LS on final FG DLT deliverables | | FG-DLT |  |
| [FGAI4H-F-029](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-029.docx) | Standardization of MRI Brain Imaging for Parkinson Disease | | MRI Institute for Biomedical Research (Canada), Ontario Brain Institute (Canada) |  |
| [FGAI4H-F-030](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-030.docx) | New topic area: AI-based detection of malaria | | Makerere University (Uganda) |  |
| [FGAI4H-F-031](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-031.docx) | Development AI assisted diagnostic system in coronary computed tomography angiography | | ShuKun Technology |  |
| [FGAI4H-F-031-A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-031-A01.pptx) | | Development AI assisted diagnostic system in coronary computed tomography angiography - Att.1: Presentation | ShuKun Technology |  |
| [FGAI4H-F-032](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-032.docx) | Quality Criteria: Regulatory Synthesis and TG-Questionnaire | | WG-DAISAM Chair |  |
| [FGAI4H-F-032-A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-032-A01.pptx) | | Update on WG on Data and AI solution assessment methods (WG-DAISAM): Quality Criteria: Regulatory Synthesis and TG-Questionnaire – Att.1: Summary slides | WG-DAISAM Chair |  |
| [FGAI4H-F-033](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-033.docx) | New topic area: AI for the diagnostic of bacterial infection and antimicrobial resistance | | Médecins Sans Frontières | Late |
| [FGAI4H-F-033-A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-033-A01.pptx) | | New topic area: AI for the diagnostic of bacterial infection and antimicrobial resistance – Att.1: Presentation | Médecins Sans Frontières | Late |
| [FGAI4H-F-034](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-034.docx) | Draft Process description for data and AI solution handling | | WG-DASH Chair | Late |
| [FGAI4H-F-035](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-035.docx) | New topic area: “Leveraging Artificial Intelligence to Achieve Universal Health Coverage” | | mTOMADY | Late |
| [FGAI4H-F-035-A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-035-A01.pptx) | | New topic area: “Leveraging Artificial Intelligence to Achieve Universal Health Coverage” - Att.1: Presentation | mTOMADY |  |
| [FGAI4H-F-036](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-036.docx) | Draft: Working Group on Experts; Terms of Reference | | FG-AI4H Chairman |  |
| [FGAI4H-F-036-A01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-036-A01.docx) | | Draft: Working Group on Experts - Att.1: Draft application form for AI4H experts | FG-AI4H Chairman |  |
| [FGAI4H-F-036-A02](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-036-A02.docx) | | Draft: Working Group on Experts - Att.2: Declaration of conflict of interest form | FG-AI4H Chairman |  |
| [FGAI4H-F-036-A03](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-036-A03.pptx) | | Draft ToRs for WG-Experts - Att.3: Summary slides | FG-AI4H Chairman |  |
| [FGAI4H-F-037](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-037.docx) | Draft for online collaboration tools, rules and guidelines | | WG-O & WG-DAISAM |  |
| [FGAI4H-F-038](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-038.pptx) | Update on WG on Regulatory Considerations | | WG-RC Chair |  |
| [FGAI4H-F-039](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-039.docx) | Plans for joint DASH and DAISAM Workshop | | WG-DASH, WG-DAISAM Chairs |  |
| [FGAI4H-F-040](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-040.docx) | LS/r on AI (Artificial Intelligence)/ML (Machine Learning) and security (SG17-LS142) [to ITU-T SG17] | | WG-DASH Chair |  |
| [FGAI4H-F-041](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-041.docx) | LS/r on request for relevant AI Use Cases (ISO/IEC JTC1/SC42-20190531) [to JTC 1/SC 42] | | WG-DAISAM Chair |  |
| [FGAI4H-F-101](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-101.docx) | Report of the 6th meeting (Meeting F) of the Focus Group on Artificial Intelligence for Health (FG-AI4H) | | FG-AI4H |  |
| [FGAI4H-F-102](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-102.docx) | Updated Call for Proposals: Use Cases, Benchmarking, and Data | | FG-AI4H |  |
| [FGAI4H-F-103](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-103.docx) | Updated FG-AI4H data acceptance and handling policy | | FG-AI4H | \* |
| [FGAI4H-F-105](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-105.docx)\*\* | ToRs for the WG-Experts and call for experts | | FG-AI4H | \* |
| [FGAI4H-F-106](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-F-106.docx) | Guidelines on FG-AI4H online collaboration tools | | FG-AI4H | \* |

\* After two-week online consultation period.

\*\* F-104 skipped on purpose.

Annex C  
List of participants

The list below identifies 153 participants. Several participants joined remotely.

| Title | First Name | Last Name | Entity | Country | 2 Sep | 3 Sep | 4 Sep |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Mr | Machano | ABASS | Ministry of Education and Vocational Training, Zanzibar | Tanzania | Present | Present | Present |
| Mr | Mohammed | ABDUL | MMH | Tanzania | Present |  |  |
| Mr | Salim | ABDULLA | Ifakara Health Institute | Tanzania | Present | Present | Present |
| Mr | Ibrahim | ABEID | Ministry of Land, Zanzibar | Tanzania | Present | Present | Present |
| Mr | Alli | ADINAN | Zanzibar University | Tanzania | Present |  |  |
| Mr | Rajab | AHMADA | Tanzania Broadcasting Services-TV | Tanzania | Present |  |  |
| Mr | Darlington | AKOGO | minoHealth AI Labs | Ghana | Present | Present | Present |
| Mr | Khamis | ALI | Karume Institute of Science and Technology | Tanzania | Present | Present | Present |
| Ms | Megan | ALLEN | Inspired Ideas | Tanzania | Present | Present | Present |
| Mr | Abdallah | ALLY | E-Government | Tanzania | Present | Present | Present |
| Mr | Abdulhamid | ALLY | Sumait University | Tanzania | Present | Present | Present |
| Ms | Mayasa | ALLY | Zanzibar Health Research Institute | Tanzania | Present | Present | Present |
| Mr | Ame | AME | Zanzibar Health Research Institute | Tanzania | Present | Present | Present |
| Mr | Manyanda | ANTONIO | Tanzania Communications Regulatory Authority (TCRA) | Tanzania | Present | - | - |
| Mr | FRANK | ARABI | The University of Dodoma | Tanzania | Present | - | - |
| Mrs | Ali | ATWIYE | Ministry of Works Communications and Transportation | Tanzania | Present | Present | Present |
| Mr | Pat | BAIRD | Philips | United States | Present | Present | Present |
| Mr | Pradeep | BALACHANDRAN | Renmin University of China | Switzerland | Remote | Remote | Remote |
| Mrs | Cova | BASCARAN | London School Hygiene Tropical Medicine | UK | Remote | Remote |  |
| Mr | Moshe | BECKER | RadLogics | United States | Remote |  |  |
| Ms | Isabelle | BOLON | University of Geneva | Switzerland |  | Remote |  |
| Mr | Shih-Fang | CHANG | ITRI International | United States | Remote |  |  |
| Mr | Khuwaylid | CHOMBOH | MOIC | Tanzania | Present |  | Present |
| Mr | Alexandre | CUENAT | Wellcome Trust | United Kingdom | Present | Present | Present |
| Ms | Ayda | DABIRI | International Telecommunication Union | Switzerland |  | Remote |  |
| Mr | Simão | DE CAMPOS NETO | International Telecommunication Union | Switzerland | Present | Present |  |
| Mr | Shiqian | DING | Beijing Infervision Technology | China | Remote | Remote | Remote |
| Dr | Abubakar | DIWANI | The State University of Zanzibar | Tanzania | Present | Present | Present |
| Mr | M. Khair | ELZARRAD | FDA | United States |  |  | Remote |
| Mrs | Janina | ESINS | Robert-Koch-Institute | Germany | Present | Present | Present |
| Ms | Martina | FISCHER | Robert Koch Institute | Germany | Present | Present | Present |
| Mr | Jun | GU | Beijing Infervision Technology | China |  | Remote | Remote |
| Mr | Nathan | GUO | Shukun Technology | China | Present | Present | Present |
| Mr | Zdenek | GÜTTER | Ministry of Industry and Trade | Czech Republic | Remote | Remote | Remote |
| Mr | Brian | HAACKE | Perimeter Innovation | Canada |  | Remote |  |
| Ms | Juma | HADIYA | Ministry of Education and Vocational Training, Zanzibar | Tanzania | Present | Present | Present |
| Ms | Mwita | HAFSA | Zanzibar University | Tanzania | Present | Present | Present |
| Mr | Issa | HAMAD | Communication Zanzibar | Tanzania | Present |  |  |
| Mr | Masoud | HAMAD | The State University of Zanzibar | Tanzania | Present | Present |  |
| Mr | Badru | HAMOUD | Ministry of Infrastructure, Communications and Transportations (MOIC), Zanzibar | Tanzania | Present | Present | Present |
| Mr | Mtende | HASSAN | Tanzania Communications Regulatory Authority (TCRA) | Tanzania | Present |  |  |
| Ms | Salma | HASSAN | Permanent Mission of the United Republic of Tanzania to the United Nations in New York | Tanzania | Present | Present | Present |
| Mr | Henry | HOFFMANN | Ada Health GmbH | Germany | Present | Present | Present |
| Mr | Heiko | HORNUNG | D-tree International | United States | Present |  |  |
| Mr | Christophe | HSU | Global Dermatology | Switzerland | Remote |  |  |
| Mr | Hussein | HUSSEIN | Ministry of Education and Vocational Training, Zanzibar | Tanzania | Present | Present | Present |
| Mr | Suleiman | HYMAR | The State University of Zanzibar | Tanzania | Present |  | Present |
| Ms | Amina | IDDI | Ministry of Finance, Zanzibar | Tanzania |  |  | Present |
| Mr | Voinicu | IONUT | Muhimbili University of Health and Allied Sciences | Tanzania |  | Present |  |
| Mr | Salum | JAMAL | MOIC | Tanzania |  |  | Present |
| Mr | Bilel | JAMOUSSI | International Telecommunication Union | Switzerland | Remote | Remote |  |
| Mr | Munkondya | JOHN | Universal Communications Service Access Fund (UCSAF) | Tanzania | Present |  | Present |
| Dr | Kilongola | JOSEPH | Universal Communications Service Access Fund (UCSAF) | Tanzania | Present |  |  |
| Dr | Crispin | KAHESA | Ocean Road Cancer Institute | Tanzania |  | Present | Present |
| Mr | Idrissa | KASSIM | Ministry of Youth, Culture, Arts and Sports, Zanzibar | Tanzania | Present | Present | Present |
| Mr | Maliha | KASSIM | MOIC | Tanzania | Present |  | Present |
| Ms | Huwaida | KHALFAN | Ministry of Finance, Zanzibar | Tanzania |  |  | Present |
| Mr | Mambo | KHALID | Land Commission, Zanzibar | Tanzania | Present |  |  |
| Mr | Rashid | KHAMIS | Ministry of Infrastructure, Communications and Transportations (MOIC), Zanzibar | Tanzania | Present | Present | Present |
| Mr | Said | KHAMIS | Ministry of Infrastructure, Communications and Transportations (MOIC), Zanzibar | Tanzania | Present | Present | Present |
| Mr | Haji Suleiman | KHATIBU | Zanzibar Utilities Regulatory Authority | Tanzania |  | Present |  |
| Ms | Shani | KHELEF | MOIC | Tanzania | Present |  | Present |
| Mr | Khamis | KHERI | Zanzibar University | Tanzania |  |  | Present |
| Mr | Ferath | KHERIF | CHUV | Switzerland |  | Remote |  |
| Prof | Gibson | KIBIKI | East African Community | Burundi | Present |  |  |
| Mr | Suleiman | KIMATHA | Aphotheker Consultancy (T) Limited | Tanzania | Present |  |  |
| Mr | Ali | KOMBO | Karume Institute of Science and Technology | Tanzania | Present | Present | Present |
| Mr | Ussi | KOMBO | Zanzibar Health Research Institute | Tanzania | Present | Present | Present |
| Mr | Vuai | KOMBO | Zanzibar University | Tanzania | Present | Present | Present |
| Ms | Monique | KUGLITSCH | Fraunhofer HHI | Germany | Present | Present | Present |
| Mr | Andreas | KÜHN | Ada Health GmbH | Germany | Remote | Remote | Remote |
| Mr | Robertin Noelson | LAHIAFAKE | Doctors for Madagascar | Madagascar | Present | Present | Present |
| Mr | Marc | LECOULTRE | Business Investigation | Switzerland | Present | Present | Present |
| Ms | Naomi | LEE | The Lancet | UK | Present | Present | Present |
| Ms | Jafary | LIANA | Aphotheker Consultancy (T) Limited | Tanzania | Present |  |  |
| Mr | Hong | LIANG | National Medical Products Administration | China | Remote |  |  |
| Ms | Michelle | LU | Ark Health Solution | China | Remote | Remote | Remote |
| Mr | Jackie | MA | Fraunhofer HHI | Germany | Present | Present | Present |
| Ms | Sabrina | MACHANO | Ministry of Infrastructure, Communications and Transportations (MOIC), Zanzibar | Tanzania | Present | Present | Present |
| Mr | Maabadi | MAKAME | Ministry of Constitution and Legal Affairs, Zanzibar | Tanzania | Present | Present | Present |
| Ms | Mwanajuma | MAKAME | Ministry of Finance, Zanzibar | Tanzania |  |  | Present |
| Ms | Nada | MALOU | Medecins sans frontieres | France | Present | Present | Present |
| Mr | Abraham | MANGESHO | Universal Communications Service Access Fund | Tanzania | Present | Present | Present |
| Mr | Marobe Wama | MAROBE | Ministry of Foreign Affairs, Tanzania | Tanzania | Present | Present | Present |
| Mr | Honorati | MASANJA | Ifakara Health Institute | Tanzania | Present | Present | Present |
| Dr | Irene | MASANJA | Ifakara Health Institute | Tanzania | Present | Present | Present |
| Ms | Justina Tumaini | MASHIBA | Universal Communications Service Access Fund (UCSAF) | Tanzania | Present | Present | Present |
| Mr | Esuvatie | MASINGA | Tanzania Communications Regulatory Authority (TCRA) | Tanzania | Present |  |  |
| Mr | Abdulrahaman | MASOUD | Ifakara Health Institute | Tanzania | Present |  |  |
| Mr | Joseph | MATIKO | Dar es Salaam Institute of Technology | Tanzania | Present | Present | Present |
| Mr | Vishnu Vardhana Rao | MENDU | Ministry of Communications | India | Present | Present | Present |
| Ms | Mythili | MENON | International Telecommunication Union | Switzerland | Remote | Remote | Remote |
| Eng | Richard | MGEMA | Ministry of Works Transport and Communication, Tanzania | Tanzania | Present | Present | Present |
| Ms | Fatuma | MOHAMED | Minist. of Infract. Communication & Transportation | Tanzania |  | Present |  |
| Mr | Raya | MOHAMED | E-Government | Tanzania | Present |  |  |
| Mr | Awena | MOHD | E-Government | Tanzania | Present |  |  |
| Ms | Maryam | MOHD | Ministry of Infrastructure, Communications and Transportations (MOIC), Zanzibar | Tanzania | Present | Present | Present |
| Mr | Mark A.S | MSETI | Ocean Road Cancer Institute | Tanzania | Present | Present | Present |
| Mr | Hassan | MSHINDA | Fondation Botnar | Switzerland | Present |  |  |
| Mr | Benard | MTUTA | Zanzibar Health Research Institute | Tanzania | Present |  |  |
| Mr | Mkanga | MUHSIN | Ministry of Education and Vocational Training, Zanzibar | Tanzania | Present | Present | Present |
| Mr | Innocent | MUNGY | Ministry of Works, Transport and Communications, Tanzania | Tanzania | Present | Present | Present |
| Mr | Castory | MUNISHI | University of Dodoma | Tanzania | Present |  |  |
| Mr | Mohamed | MUSSA | Karume Institute of Science and Technology | Tanzania | Present | Present | Present |
| Mr | Peter | MWITA | Ministry of Works Transport and Communication, Tanzania | Tanzania | Present | Present | Present |
| Mr | Suleiman | MZEE | Communication Zanzibar | Tanzania | Present |  |  |
| Mrs | Rose | NAKASI | Makerere University | Uganda | Present | Present | Present |
| Mr | Nassor | NASSOR | Ministry of Youth, Culture, Arts and Sports, Zanzibar | Tanzania | Present | Present | Present |
| Mrs | Dorah Peter | NDAZI | Index Labs TZ Company Limited | Tanzania | Present | Present | Present |
| Mr | Tom | NEUMARK | University of Oslo | Norway | Present | Present |  |
| Mr | Peter | NGAYA | Ministry of Works Transport and Communication, Tanzania | Tanzania | Present | Present | Present |
| Mrs | Clara | NORDON | Médecins Sans Frontières | France | Present | Present | Present |
| Ms | Elaine | NSOESIE | Boston University | United States | Present | Present | Present |
| Mr | Luis | OALA | Fraunhofer HHI | Germany | Present | Present | Present |
| Mr | Haji | OMAR | MOIC | Tanzania |  |  | Present |
| Mr | Muhiddin | OMAR | Zanzibar Health Research Institute | Tanzania | Present | Present |  |
| Mr | Rukary | OTHMAN | MLEEC | Tanzania | Present |  |  |
| Mr | Yura | PEROV | Babylon Health | UK | Remote | Remote | Remote |
| Ms | Zrinka | POTOCANAC | Ericsson Nikola Tesla | Croatia |  | Remote | Remote |
| Mr | Sameer | PUJARI | World Health Organization | Switzerland | Remote |  |  |
| Mr | Bastiaan | QUAST | International Telecommunication Union | Switzerland | Present | Present | Present |
| Mr | Jabir | RADHAN | Ministry of Communications | Tanzania | Present |  |  |
| Ms | Parvathi | RAM | St John's Medical College | United Kingdom |  | Remote |  |
| Mr | Sekou | REMY | IBM Research - Africa | Kenya | Remote |  |  |
| Mr | Albert | RICHARD | Universal Communication Service Access Fund | Tanzania | Present | Present | Present |
| Mr | Rafael | RUIZ DE CASTANEDA | Université de Genève | Switzerland |  | Remote | Remote |
| Mr | Ally Jr | SALIM | Inspired Ideas | Tanzania | Present | Present |  |
| Mr | Amour | SAMBIRO | Ministry of Infrastructure, Communications and Transportations (MOIC), Zanzibar | Tanzania | Present |  |  |
| Mr | Hussein Said | SEIF | Zanzibar Utilities Regulatory Authority | Tanzania |  | Present |  |
| Mr | Omar S | SEIF | President's Office Public Service and Good Governance, Zanzibar | Tanzania | Present | Present |  |
| Ms | Khadija | SHABAN | Ministry of Health | Tanzania | Present |  |  |
| Mr | Arun | SHROFF | Xtend.AI | United States |  |  | Remote |
| Ms | Manjula | SINGH | Ministry of Communications | Tanzania | Present | Present | Present |
| Ms | Aisha | SLEIMAN | Ministry of Infrastructure, Communications and Transportations (MOIC), Zanzibar | Tanzania | Present | Present | Present |
| Mr | Vasili | SOFIADELLIS | Changemakers Lab | South Africa | Remote |  |  |
| Ms | Ines | SOUSA | Associação Fraunhofer Portugal Research | Portugal |  |  | Remote |
| Ms | Shukuru | STANSLAUS | UCSAF | Tanzania |  |  | Present |
| Ms | Mwana | SULEIMAN | Karume Institute of Science and Technology | Tanzania | Present | Present | Present |
| Mr | Peter Rudolf | ULANGA | Tanzania Communications Regulatory Authority (TCRA) | Tanzania | Present | Present | Present |
| Mr | Shubhanan | UPADHYAY | Ada Health GmbH | Germany | Present | Present | Present |
| Mr | Ramadhan | UTINGO | Ministry of Infrastructure, Communications and Transportations (MOIC), Zanzibar | Tanzania | Present | Present | Present |
| Mr | Franck | VERZEFÉ | TrueSpec Africa | Cameroon | Present | Present | Present |
| Mr | Abdalalla | VUAI | President's Office, Zanzibar | Tanzania | Present | Present | Present |
| Mr | William | WASSWA | Mbarara University of Scie. & Techlogy | Uganda | Present | Present | Present |
| Mr | Markus | WENZEL | Fraunhofer HHI | Germany | Present | Present | Present |
| Mr | Thomas | WIEGAND | Fraunhofer HHI | Germany |  | Present |  |
| Ms | Shan | XU | Ministry of Industry and Information Technology (MIIT) | China | Present | Present | Present |
| Mr | Mustapha | YUSUPH | Zanzibar University | Tanzania |  |  | Present |
| Ms | Suleiman | ZAINAB | Zanzibar University | Tanzania | Present | Present | Present |
| Mr | Zhang | ZHEN | Alibaba Cloud | China | Present |  |  |

Annex D  
Summary of decisions

This is a summary of the decisions taken at Meeting F (Zanzibar, 2-5 September 2019):

[Dec-F-1. It was agreed to prepare a reply LS to ITU-T SG17 pointing to the lack of standards defining homomorphic encryption and of respective libraries. This was reviewed by the meeting as in FGAI4H-F-040.](#_Toc21269099)

[Dec-F-2. It was agreed to send a reply LS to JTC1/SC42 after a one-week review period for comments via the mailing list. Comments from the topic drivers of TG-Symptoms and TG-Outbreak were sought in respect to the two annexes in the document.](#_Toc21269100)

[Dec-F-3. It was agreed that the WG-DAISAM would progress its work on the Quality Criteria questionnaire and if it becomes mature in the interim period, it would be submitted for approval in the mailing list (procedure detailed in E-101).](#_Toc21269101)

[Dec-F-4. It was agreed to issue an updated data acceptance policy document D-103 as output of this meeting (F-103). It will be circulated before posting.](#_Toc21269102)

[Dec-F-5. It was agreed to circulate FGAI4H-F-037 "Draft for online collaboration tools" for approval (two-week period) as output for this meeting.](#_Toc21269103)

[Dec-F-6. ITU was requested to implement the missing SharePoint features to enable the online work by the TGs and WGs. Simão agreed to follow up, suggested to use an active TG as prototype, e.g. TG-Symptoms.](#_Toc21269104)

[Dec-F-7. It was agreed to issue an updated version of the "Call for Proposals: Use Cases, Benchmarking and Data" document (F-102). The WG-O chair kindly agreed to undertake the update.](#_Toc21269105)

[Dec-F-8. A new vice-chair was nominated, Mr Chandrashekar Ranga (Central Drugs Standard Control Organisation, CDSCO, India).](#_Toc21269106)

[Dec-F-9. It was decided that the WG-HR co-chairs will be contacted to see if they see a need to continue the activities, otherwise it will be closed.](#_Toc21269107)

[Dec-F-10. It was agreed that the ToR for the WG-Experts is mature, but that it would be submitted to the reflector for a 2-week consultation and approval.](#_Toc21269108)

[Dec-F-11. ToRs for three potential new WGs (WG on clinical evaluation; WG on global and public health; WG on ethics) would need to be elaborated before a decision is taken and the target for creation of such WGs would be the next meeting in India.](#_Toc21269109)

[Dec-F-12. It was agreed to remind TG Drivers that an update of their activities is expected at each FG meeting.](#_Toc21269110)

[Dec-F-13. It was agreed to check with the TG driver for TG-Radiotherapy (Zhenzhou (Joe) WU) whether the TG should be closed, due to lack of progress and participation.](#_Toc21269111)

[Dec-F-14. The draft CfTGP for the TG-Outbreaks that was circulated in the interim period was approved by the meeting, and has been published on the TG page.](#_Toc21269112)

[Dec-F-15. It was agreed that the TG-Cogni driver will organize subsequent calls with the authors of to clarify whether the MRI Brain Imaging for Parkinson Disease activity proposed in F-039 would be a good match within TG-Cogni.](#_Toc21269113)

[Dec-F-16. The group supported the proposal to create a new topic group on malaria detection, with Rose Nasaki (Makerere University, Uganda) as TG driver.](#_Toc21269114)

[Dec-F-17. It was agreed to undertake this work as a sub-group within TG-Cardio, with the leadership of Ning (Nathan) Guo, to consider AI assisted diagnostic system in coronary computed tomography angiography.](#_Toc21269115)

[Dec-F-18. It was agreed to create a new TG-Bacteria on Diagnoses of bacterial infection and AMR, led by Nada Malou (Médecins Sans Frontières, France).](#_Toc21269116)

[Dec-F-19. Elaine Nsoesie (Boston University School of Public Health) volunteered to draft an onboarding document.](#_Toc21269117)

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