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| ITU Logo | INTERNATIONAL TELECOMMUNICATION UNION  **TELECOMMUNICATION STANDARDIZATION SECTOR**  STUDY PERIOD 2017-2020 | | FG-AI4H-I-004 | |
| **ITU-T Focus Group on AI for Health** | |
| **Original: English** | |
| **WG(s):** | | Plenary |  | |
| **DOCUMENT** | | | | |
| **Source:** | | Editors | | |
| **Title:** | | TDD template: Proposed draft update | | |
| **Purpose:** | | Discussion | | |
| **Contact:** | | Henry Hoffmann  Ada Health GmbH Germany | | E-Mail: [henry.hoffmann@ada.com](mailto:henry.hoffmann@ada.com) |
| **Contact:** | | Eva Weicken Fraunhofer HHI Germany | | E-Mail: [eva.weicken@hhi.fraunhofer.de](mailto:eva.weicken@hhi.fraunhofer.de) |
| **Contact:** | | FG-0AI4H Secretariat | | E-mail: [tsbfgai4h@itu.int](mailto:tsbfgai4h@itu.int) |

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| **Abstract:** | This document updates the first version of the template for topic description documents (TDD) found in FG-AI4H-C-105 (Lausanne, January 2019), based on feedback received since then. These updates were requested during the Brasilia meeting (cf. FG-AI4H-H-101-R01) and proposed from the topic groups. The expectation is that this new version will work for all topic groups.  Updates include: sub-topics in the TDD structure (as proposed in [D-022](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-D-022.docx)), change notes, mentioning of the contributors, restructuring of some sections, lists of figures and tables, glossary, health economics and a regulatory section, and improved guidance. Upon reflection, it is proposed that business case not be considered, as the TDDs are meant to be a technical document. |

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| ITU Logo | INTERNATIONAL TELECOMMUNICATION UNION  **TELECOMMUNICATION STANDARDIZATION SECTOR**  STUDY PERIOD 2017-2020 | | FG-AI4H-X-# | |
| **ITU-T Focus Group on AI for Health** | |
| **Original: English** | |
| **WG(s):** | | Plenary | Location, x-y Month 20xx | |
| **DOCUMENT** | | | | |
| **Source:** | | TG-xxx Topic Driver | | |
| **Title:** | | TDD update: TG-xxx (title of the topic group) | | |
| **Purpose:** | | Discussion | | |
| **Contact:** | | Name  Topic Driver – TG- xx Some Institute Country | | E-mail: your.mail@somemail.com |

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| **Abstract:** | This document specifies a standardized benchmarking for title of our topic group. It follows the structure defined in FGAI4H-I-004 and covers all scientific, technical and administrative aspects relevant for setting up this benchmarking. The creation of this document is an ongoing iterative process until it will be finally approved by the Focus Group AI for Health as deliverable DEL No.xxx This draft will be a continuous input- and output-document. |
| **Change Notes:** | **Version x.x (submitted as FGAI4H-X-# for meeting X in xxxxx)**   * Added xyz * Updated xyz * …   **Version x.x (submitted as FGAI4H-X-# for meeting X in xxxxx)**   * Added xyz * Updated xyz   … |
|  |  |

**Contributors**

|  |  |  |
| --- | --- | --- |
| **Contact:** | Name  Some Company/Institute Country | Tel: +4x xx xxxxxxxxx Email: some.name@somecompany.com |
| **Contact:** | Name  Some Company/Institute Country | Tel: +4x xx xxxxxxxxx Email: some.name@somecompany.com |

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FG-AI4H Topic Description Document

Topic group name (TG-tt)

# Introduction

## Document structure

Items to be covered:

* overview of the whole document

## AI4H topic group

Items to be covered:

* Topic group structure
* Subtopic 1
* Subtopic 2
* Topic group participation
* Tools/process of TG cooperation
* TG interaction with WG, FG
* Current topic group and topic status
* Contributors so far
* Next meetings
* Next steps for the work on this document

## Topic description

Items to be covered:

* description of topic
* relevance of the health topic
* gold standard of current health topic handling
* possible impact of AI in this topic
* expected impact of the benchmarking
  + health economic considerations, e.g. expected impact on the health system

## Ethical considerations

Items to be covered:

* ethical considerations on usage of AI
* ethical consideration of and benchmarking including its data acquisition
* the answers to all questions and requirements asked by working group on ethical considerations (WG-ETHICS)

## Regulatory considerations

Items to be covered:

* existing regulatory frameworks for the type AI this TDD deals with
* the answers to all questions and requirements asked by working group on regulatory considerations (WG-RC)

# Existing AI solutions

Items to be covered:

* current systems available with their inputs, output, focus/bias
* existing benchmarking including self-stated performance

# Existing work on benchmarking

Items to be covered:

* papers on existing attempts to benchmark solutions on the topic
* clinical evaluation attempts, RCT, etc.
* including existing numbers

# Benchmarking

## Benchmarking iterations

Items to be covered:

* An overview of the different version/iterations of the benchmarking

## Benchmarking version x

### Overview

Items to be covered:

* Describe the overall scope of this benchmarking iteration

### Benchmarking methodology and architecture

Items to be covered:

* technical architecture
* hosting (IIC, etc.)
* possibility of an online benchmarking on a public test dataset
* protocol for performing the benchmarking (who does what when etc.)
* AI submission procedure including contracts, rights, IP etc. considerations
* Subtopic 1
* Among the aforementioned aspects of benchmarking methodology and architecture, indicate the elements that are applicable to this subtopic.

– Subtopic 2

* …

### AI input data structure

Items to be covered:

* possible inputs for benchmarking
* ontologies, terminologies
* data format
* Subtopic 1
  + Among the aforementioned ontologies, terminologies and formats, indicate the elements that are applicable to this subtopic.
* Subtopic 2
* …

### AI output data structure

Items to be covered:

* outputs to benchmark
* ontologies, terminologies
* data format
* Subtopic 1
  + Among the aforementioned ontologies, terminologies and formats, indicate the elements that are applicable to this subtopic.
* Subtopic 2
* …

### Test data labels

Items to be covered:

* label types
* ontologies, terminologies
* data format
* Subtopic 1
  + Among the aforementioned label types, terminologies and formats, indicate the elements that are applicable to this subtopic.
* Subtopic 2
* …

### Scores and metrics

Items to be covered:

– which metrics & scores to use for benchmarking

– considering relation to parameters stakeholders need for decision making

– considering scores that providers use

– considering the scope providers designed their solutions for

– considering the state of the art in RCT, statistics, AI benchmarking etc.

– considering bias transparency

– Subtopic 1

* + Among the aforementioned metrics & scores, indicate the elements that are applicable to this subtopic.

– Subtopic 2

* …

### Test data set acquisition

Items to be covered:

* raw data acquisition / acceptance
* test data source(s): availability, reliability,
* labelling process / acceptance
* bias documentation process
* quality control mechanisms
* discussion of the necessary size of the test data set for relevant benchmarking results
* specific data governance derived by general data governance document (currently F-103)
* Subtopic 1
  + Among the aforementioned aspects of undisclosed test data set collection, indicate the elements that are applicable to this subtopic.
* Subtopic 2
* …

### Reporting methodology

Items to be covered:

* Report publication in papers or as part of ITU documents
* Online reporting
* public leaderboards vs. private leaderboards
* Credit-Check like on approved sharing with selected stakeholders
* Report structure including an example
* Frequency of benchmarking
* Subtopic 1
  + Among the aforementioned aspects of reporting methodology, indicate the elements that are applicable to this subtopic.
* Subtopic 2
* …

### Result

An overview of the results from runs of this benchmarking version

### Discussion

Discussion of the insights from this benchmarking iteration:

* technical architecture
* data acquisition
* benchmarking process
* benchmarking results
* important learnings that need to be considered in the next benchmarking iteration

# Discussion

Discussion of the insights from the work on benchmarking in this topic group so far

* external feedback on the whole topic and its benchmarking
* technical architecture
* data acquisition
* benchmarking process
* benchmarking results
* field implementation success stories

[Placeholders – Delete if not used.

Table 1: Example of a table

| Number | Observation |
| --- | --- |
| 1 | Sample table |
| 2 | Table header (1st row) uses style Table\_head |
| 3 | Other table rows use style Table\_text |
| 4 | Heading with table number uses style "Table\_No & title" |

Captions for tables use WinWord style "Table\_No & title"

|  |  |  |
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| A | 🡪 | B |

Captions for figures use WinWord style "Figure\_No & title"

Figure 1: Example of a figure

]

Annex A:  
Declaration of conflict of interest

In accordance with the ITU transparency rules this section lists the conflict of interest declarations for everyone who contributed to this document.

**Company/Institution/Individual XYZ**

A short explanation of what the company works on how the work on this document might help the company and/or harm competitors. A list of all the people who contribute on behalf of this company to this document and also if they have some personal interest in companies (e.g. shares).

Annex B:  
Glossary

This section lists all the relevant abbreviations, acronyms and uncommon terms used in the document.

| Acronym/Term | Expansion | Comment |
| --- | --- | --- |
| TDD | Topic Description Document | Document specifying the standardized benchmarking for a topic the FG AI4H Topic Group works on. This document is the TDD for the Topic Group "title of your topic group". |
| … | … | … |

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