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| ITU Logo | INTERNATIONAL TELECOMMUNICATION UNION**TELECOMMUNICATIONSTANDARDIZATION SECTOR**STUDY PERIOD 2017-2020 | FG-AI4EE-WG2-O-009 |
| **Focus Group on Environmental Efficiency for AI and other Emerging Technologies** |
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| **WG(s):** | Working Group 2  | E-meeting, 01 September 2021 |
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| **Source:** | WG2 Co-chairman |
| **Title:** | Report of FG-AI4EE Working Group 2, 01 September 2021 |
| **Purpose:** | Information |
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| **Keywords:** | Report; FG-AI4EE; Working Group 2 |
| **Abstract:** | This document contains the report of the FG-AI4EE Working Group 2 e-meeting, held on 01 September 2021, 15:00-16:30 (CET) |

1. **Introduction**

Experts of Working Group 2 met virtually on 01 September 2021.

A draft agenda was provided in document [FG-AI4EE-WG2-I-036](https://extranet.itu.int/sites/itu-t/focusgroups/ai4ee/wg/_layouts/15/WopiFrame2.aspx?sourcedoc=%7B0A3241FC-8BEE-4AA6-99CA-33F49CC4ED06%7D&file=FG-AI4EE-WG2-I-036.docx&action=default&CT=1630500983899&OR=DocLibClassicUI). The agenda was approved without modification.

All documents discussed are available on FG-AI4EE Working Group 2 SharePoint <https://extranet.itu.int/sites/itu-t/focusgroups/ai4ee/wg/SitePages/WG2.aspx>

* 1. **Attendance list**

The meeting was attended by a total of 15 participants. The final list of participants is available in Annex 1 of this report.

1. **Agenda of the meeting**

The Agenda is available in document [FG-AI4EE-WG2-I-036](https://extranet.itu.int/sites/itu-t/focusgroups/ai4ee/wg/_layouts/15/WopiFrame2.aspx?sourcedoc=%7B0A3241FC-8BEE-4AA6-99CA-33F49CC4ED06%7D&file=FG-AI4EE-WG2-I-036.docx&action=default&CT=1630500983899&OR=DocLibClassicUI).

1. **Discussion and Summary of inputs**

3.1 Discussion on deliverable D.WG2-6: *Technical Report - Assessing Environmentally Efficient Data Centre and Cloud Computing in the framework of the UN SDGs* – Leader: Paolo Bertoldi, with the help of Tiago Serrenho (see document [FG-AI4EE-WG2-I-035](https://extranet.itu.int/sites/itu-t/focusgroups/ai4ee/wg/_layouts/15/WopiFrame2.aspx?sourcedoc=%7B63063298-BDF7-4D64-920C-E84D58298CF6%7D&file=FG-AI4EE-WG2-I-035.docx&action=default&CT=1630509211878&OR=DocLibClassicUI))

**3.1.1 Presentation**

Tiago Serrenho, European Commission JRC, provided an update on the latest iteration of the draft report.

*This technical report aims to adopt an impact-oriented life cycle assessment approach to examine the current development of data centre and cloud computing in the area of energy efficiency and environmental sustainability, study available assessment matrixes and tools, identify technical challenges and policy gaps in the framework of the UN SDGs.*

Tiago went through the document and highlighted sections that were added since the last draft.

Regarding the scope of report, Tiago suggested to let go of the section on standard gap analysis as it could be the subject of a whole new deliverable.

Tiago also pointed out sections where Contributions from experts are needed to finalize the report. See comments pane on the document for further information ([FG-AI4EE-WG2-I-035](https://extranet.itu.int/sites/itu-t/focusgroups/ai4ee/wg/_layouts/15/WopiFrame2.aspx?sourcedoc=%7B63063298-BDF7-4D64-920C-E84D58298CF6%7D&file=FG-AI4EE-WG2-I-035.docx&action=default&CT=1630509211878&OR=DocLibClassicUI)).

* Introduction
	+ Contributions neededon the interlink between Data Centres and the Sustainable Development Goals; Boundaries of DC environmental impact (and the whole lifecycle) and SDGs introduction
* Section 7
	+ Contributions needed on Water effluents, Embedded carbon and Social Impacts.
* Section 9 on SDGs and Data Centers
	+ Contributions needed on Best Practices related to target 6.1, 6.3, 6.4, 6.5; an
* Finalize section 9 on SDGs
* Develop section 10 on Policy Recommendations.

**3.1.2 Comments on the draft**

Experts suggested to consider the following areas:

* Data center water cooling impact locally
* Consider adding SDG 3 in section 7
* Consider adding a part on the social awareness of companies
* Mention of data waste and metric to estimate the usefulness of data.
* Consider Bitcoin mining impact on data centres sustainability

**Actions:**

* Experts to help review the current draft and provide input Contributions on research on existing standards, references of social impact of data centres in local communities, and overall analysis of public policies being used to achieve the sustainable data centres.

4 Next steps & Actions

* An updated draft will be presented to WG2 Experts at the end of September to take stock on progress on the items discussed.
* The aim will be to present the final draft of deliverable D.WG2-6 at the next FG-AI4EE meeting.

5 Next e-meeting

Next e-meeting is scheduled for Wednesday 29 September 2021 from 15:00 to 16:30 CEST. The objective will be to update on progress on deliverables D.WG2-6 with a view of presenting the final draft at the next FG-AI4EE plenary meeting.

6 Other business

None.

**Annex 1**

**List of participants**

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| **First Name** | **Last Name** | **Job Title** | **Company** | **Country** |
| Fatime | Ahmeti | Study Group Assistant | International Telecommunication Union | Switzerland |
| Leonidas | Anthopoulos | Professor, University of Thessaly, Greece | Ministry of Digital Governance | Greece |
| Paolo | Bertoldi | Senior Expert | European Disability Forum | Italy |
| Claudio | Bianco |  | Telecom Italia S.p.A. | Italy |
| Zhangwei | Chen | Junior Officer | Tsinghua University | China |
| José Esteban | Gabarda Balaguer | Researcher | jose esteban gabarda balaguer | Spain |
| Mahmoud | Ibrahim Mahmoud | Principal Environmental Scientist | National Oil Spill Detection and Respons | Nigeria |
| Tony | Lee Luen Len | Partner | Ecosis | Mauritius |
| Stefano | Nativi | Big Data Lead Scientist | European Union | Belgium |
| Madhavan | Pallan | Researcher in AI | United Nations Research Institute for Social Development | Switzerland |
| John | Patsavellas | Senior Lecturer | Cranfield University | United Kingdom |
| Charlyne | Restivo | FG-AI4EE Advisor | International Telecommunication Union | Switzerland |
| Tiago | Serrenho | Scientific Officer | European Union | Belgium |
| Nicolas | Seynat |  | ESTD motors | France |
| Vimal | Wakhlu |  | ITU-APT Foundation of India | India |

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