**Deliverable D7.1: Report ‘Project Management Plan’**

From: University of Bremen, Institute of Environmental Physics

Date: 30 September 2016

To: EUROPEAN SPACE AGENCY (ESA)

The European Space Research Institute (ESRIN),

Via Galileo Galilei,

Casella Postale 64,

00044 Frascati (Roma),

Italy

***Att.: Sara Pancotti***

Subject: ESA-IPL-POE-LG-cl-LE-2015-1129

Title: Fiducial Reference Measurements for Ground-Based IR Greenhouse Gas Observation (FRM4GHG)

Category: ESA Express Procurement (EXPRO)

Our ref.: Proposal No. 1129/2015 –

Proposal from February 16, 2016 plus comments from May 27, 2016

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Dear Sir or Madam,

With reference to the above Request for Proposal (RFP), please find our report on the ‘Project Management Plan’ (D7.1). If you have further questions, please let me know.

Regards

Justus Notholt

The project management plan depends on the timely deliverable of all deliverables. Besides the deliverables all participants need to keep a logbook, noting the need for re-alignments, calibrations, changes in measurement settings, etc.

The analyses of the measurements require ancillary data, like pressure temperature vertical profiles. These data are freely available, but different data sets exist. Since the results depend to a small extent also on the choice of the pT-data, we have to agree on the choice of these data. FMI will take care of this, and distribute the data among all partners.

The whole campaign requires technical support on-side. This will be given by a technician from FMI.

**Deliverable time schedule**

In the following all deliverables, their deadline, and the responsible persons are given. Each WP has its own WP leader, who has to take care of all duties within this WP. The overall responsibility lies at Justus Notholt, with the support from Martine deMaziere. We suggest delivering this Report D7.1 officially at month T0+2, together with D1.1, ‘campaign requirements’.

We use the following abbreviations for the table below

Justus Notholt: JN

Christoph Petri: CP

Thorsten Warneke: TW

Martine deMaziere: MM

Rigel Kivi: RK

Thomas Blumenstock: TB

Frank Hase: FH

Mahesh Kumar Sha: MS

Nicholas Jones: NJ

David Griffith: DG

Damien Weidmann: DW

Huilin Chen: HC

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| **Deliverable** | **Responsible**  **person** | **Month**  **after T0** |
| **WP1: Requirements Identification, Month 1-4**  WP manager: Justus Notholt, Uni Bremen  Required input from other WPs: none |  |  |
| D1.1: Report ‘Campaign requirements’ including  1. requirements for an observation system of GHG [R-1]  2. justification and description of the campaign location  [R-5, R-6]  3. description and justification of the instruments involved  in the campaign [R-2, R-7]  4. list of potential stakeholders, including TCCON and  NDACC IRWG stakeholders [R-3, R-4] | JN/MM | 2 |
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| **WP2: Intercomparison Preparation, Month 4-7**  WP manager:: Rigel Kivi, FMI  Required input from other WPs: D1.1 |  |  |
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| D2.1: Document describing the measurement site | RK | 2 |
| D2.2: Instrumental overview | All | 2 |
| D2.3: Document on measurement strategy to ensure  comparable observations | FH/MS | 6 |
| D2.4: Data protocol | FH | 6 |
| D2.5: Document on the retrieval strategy and intercomparison strategy and protocol | HC/MS | 6 |
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| **WP3: Intercomparison Execution, Month 7-14**  WP manager: Mahesh Kumar Sha, BIRA  Required input from other WPs: D2.1, D2.2, D2.3, D2.4, D2.5 |  |  |
|  |  |  |
| D3.1 preliminary datasets and results distributed among  partners via project Web portal | TB | 10 |
| D3.2 Updates of deliverables for the measurement and retrieval strategy (D2.3 and D2.5) if required. | MS | 10 |
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| **WP4: Data analysis and Corrective Measures, Month 7-16**  WP manager: Frank Hase, KIT  Required input from other WPs: D3.1, D3.2 |  |  |
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| D4.1: Final datasets from individual instruments delivered to  ESA by the time of FP [R-28] | DW | 18 |
| D4.2: System intercomparison and characterisation document  [R-26]. | NJ | 18 |
| D4.3: Recommendations for the instrument layout and  settings, measurement procedures, retrieval algorithms and  intercomparison protocols on the website [R-29]. | DG | 18 |
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| **WP5: Project Outreach, Month 1-18**  WP manager: Martine DeMaziere, BIRA  Required input from other WPs: All deliverables |  |  |
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| D5.1: Website, regularly updated with all documents and  Results | MS | 2,6,10,  18 |
| D5.2: Involvement in the S5P validation efforts using the  campaign data, depending on national funding. | MM | 7 |
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| **WP6: (optional): AirCore Gliding System, Month 7-18**  WP manager: Huilin Chen, Uni Groningen  Required input from other WPs: Results from T3.6, T4.1 and T4.2. |  |  |
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| D6.1: Documentation on the review and first ideas for a  lightweight AirCore system. | HC | 10 |
| D6.2: Draft of an ESA proposal for building a lightweight  AirCore gliding system. | HC | 10 |
| D6.3: Documentation on the website | HC | 18 |
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| **WP7: Project management, Month 1-18**  WP manager: Justus Notholt, Uni Bremen  Required input from other WPs: none |  |  |
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| D7.1 Project Management Plan (PMP) | JN/MM | 2 |
| D7.2 Bi-monthly Progress reports | JN/MM | Every 2 |
| D7.3 Minutes of Meetings (MoM) | JN/MM | After meetings |