**Date of progress update:** 8/05/2019 **Period covered:** April 2019

*This template is for every modelling team to very briefly report on the progress made during the past month and ongoing activities, and most importantly to point out concerns and difficulties (see Table ‘Issues, concerns, suggestions’ at the end of the template). Please keep the report short but do mention any bottleneck likely to lead to work plan slippages or production quality and reliability issues.*

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| **Brief summary in no more than 2-3 lines (for all modelling teams)** |
| Work done: fulfilment of CAMS50 requirements: domain, IFS, C-IFS, CAMS-REG.  Ongoing work: evaluation runs with new developments.  Pending issues: GFAS hourly emissions for 2016 not available yet. |

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| **WP5020 Continuous Model Development (for all modelling teams)** | | | |
| **COMPLETED DURING THE MONTH** | | | |
| Development item (dev. common to other models + individual dev.) | Target upgrade[[1]](#footnote-1) | Date completed (DD/MM/YYYY) | Short note |
| Introduction of required input data: chemical boundary conditions (MONARCH) | N/A | 31/03/2019 | 20160826 C-IFS data downloaded from CDS. Mapping C-IFS aerosols with MONARCH aerosols done. Finished adaptation of MONARCH pre-processor with C-IFS data. |
| Forecasts set-up over CAMS domain (MONARCH) | N/A | 31/04/2019 | Tests running the model with first version of CAMS domain and intermediate MONARCH configuration with GFS, C-IFS, CAMS-REG-v2.1, GFASv1.2daily. |
| Introduction of required input data: meteorology from IFS-fcst (MONARCH) | N/A | 31/04/2019 | MONARCH pre-processor adapted to IFS-fcst pressure level data. Need an intermediate process to convert IFS spectral original data to regular lat-lon. 20160826 IFS data downloaded from MARS. |
| M2.2.1: Setup model over CAMS domain | N/A |  | Where should we document this? |
| **IN PROGRESS** | | | |
| Development item (dev. common to other models + individual dev.) | Target upgrade2 | Estimated completion date (DD/MM/YYYY) | Short note[[2]](#footnote-2) |
| Introduction of required input data: emissions (MONARCH) | N/A | 31/05/2019  Depends on GFAS hourly decision. | Work finished preparing CAMS-REG-v2.2.1 and CAMS-GLOB datasets to complete MONARCH domain (anthropogenic, soil and ocean). Using GFAS daily. Implemented new version of PM split factors without the bug in the C\_OtherStationaryCombustion sector.  Pending decision on how to deal with GFAS hourly emissions for 2016 (currently not available). |
| **NOT STARTED** | | | |
| Development item (dev. common to other models + individual dev.) | Target upgrade1 | Estimated  start date (DD/MM/YYYY) | Short note[[3]](#footnote-3) |
| Set up Forecast experiment | N/A |  | Depends on GFAS hourly decision. |
| Running Forecast experiment | N/A |  | Depends on GFAS hourly decision. |
| Set up Hindcast experiment | N/A |  | Depends on GFAS hourly decision. |
| Running Hindcast experiment | N/A |  | Depends on GFAS hourly decision. |
| D2.2.1-MONARCH-P1: Section on MONARCH setup for CAMS domain. | N/A |  | Deadline 30/06/2019 |
| M2.2.2: Forecast experiment completed, and output delivered (MONARCH) | N/A |  | Deadline 30/09/2019 |
| D2.2.1-MONARCH-P2: Section on Forecast experiment | N/A |  | Deadline 31/12/2019 |
| M2.2.3: Hindcast experiment completed and output delivered (MONARCH) | N/A |  | Deadline 15/12/2019 |
| D2.2.1-MONARCH-P3: Section on Hindcast experiment | N/A |  | Deadline 30/06/2020 |

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| **Issues, concerns, suggestions (for all modelling teams)** | | |
| Type (issue, concern, suggestion) | Topic | Description |
| **DEVELOPMENT WORK** | | |
| Concern | GFAS hourly emissions | Data is not available for 2016 year. Not clear how to proceed for 20160826 experiment. Waiting for final decision about which dataset to be used (hourly or daily) prior to start specific developments in MONARCH for GFAS hourly. |
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| **DATA UPLOAD** | | |
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| **DATA ASSIMILATION** | | |
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| **OPERATIONAL PRODUCTION** | | |
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| **VERIFICATION** | | |
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| **UPGRADE PREPARATION** | | |
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| **OTHER (MANAGEMENT, etc.)** | | |
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| **Communication (for all modelling teams)** | | |
| **COMMUNICATION ACTIONS[[4]](#footnote-4) (for all modelling teams)** | | |
| Type (article, presentation, etc.) | Date  (DD/MM/YYYY) | Description |
| Presentation | 1-3/04/2019 | European air quality with the online multiscale MONARCH v2.0 Model (27th GLOREAM workshop, Norrköping, Sweden) |

1. Not for MONARQUE nor MINNI. [↑](#footnote-ref-1)
2. On track, possible delays, delayed (details to be provided in Table ‘Issues, concerns, suggestions’). [↑](#footnote-ref-2)
3. No slippage anticipated, possible delays, delayed (details to be provided in Table ‘Issues, concerns, suggestions’). [↑](#footnote-ref-3)
4. Please make sure that you acknowledge, in your communication actions/materials, that CAMS is being “Funded by the European Union" and “Implemented by ECMWF” and that the Copernicus and ECMWF logos are displayed in an appropriate way (article 2.4 of Framework agreement).

   Communication or publication of deliverables: please explicitly state that the information/material contained is being communicated/published in the name of the Commission; that the information/material contained has been produced “with funding by the European Union”; and that the Commission is not responsible for any use that may be made of the information/material contained (article 3.1.6.2 of Framework agreement). [↑](#footnote-ref-4)