



New Priority Projects and Priority Tasks

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20th COSMO General Meeting, 3-7 September 2018, St. Petersburg, Russia

PT AEVUS (WG3b)

Title: analysis and evaluation of TERRA_URB scheme

Leader: Paola Mercogliano

Aim: evaluation and deep verification of the performance of the urban parameterization code TERRA_URB, using a number of case studies, in order to decide if (and how) to optimize the model parameters, or improve the parameterisation itself

Duration (start and end dates): 09.2017 – 06.2019 (extension approved by STC 7 August 2018)

FTEs: 1.00 (COSMO) + 0.18 (KU Leuven)

Participants: CIRA, ARPA-Piemonte, RHM, KU Leuven

Status: work in progress

NB: beneficial for future ICON development

PT TERRA Nova (WG3b)

Title: TERRA Nova

Leader: Yiftach Ziv

Aim: Testing the new version of the soil scheme TERRA

Participants: IMS, RHM, MCH, DWD

Duration (start and end dates): 09.2016 – 02.2019 (extension approved by STC 29 August 2018)

FTEs: 0.2 FTE extra (provided by IMS)

Status: work in progress

NB: in the spirit of the common COSMO-ICON physics

PT CIAO (WG7)

Title: implementation of the Bechtold convection scheme in COSMO model: deterministic and ensemble-mode tests

Leader: Andrea Montani

Aim: assessment of the sensitivity of COSMO forecast skill to the use of the recently implemented (into COSMO) ECMWF IFS (Bechtold) convection scheme, particularly in the ensemble mode

Duration (start and end dates): 01.04.2017 – 31.12.2018 (extension approved by STC 20 March 2018)

FTEs: 0.95

Participants: ARPAE-SIMC, ARPA-Piemonte, CIRA, HNMS, Comet

Status: work in progress

NB: in the spirit of the common COSMO-ICON physics, beneficial for ensemble forecasts

PP C2I (WG6)

Title: Transition of COSMO to ICON-LAM

Leader: Daniel Rieger

Aim: to ensure a smooth transition from the COSMO model to ICON-LAM (at the end of PP C2I, each participating institution is free to choose when ICON-LAM replaces the COSMO model in their operational forecasting system)

Duration (start and end dates): 04.2017 – 03.2022

FTEs: ca. 8

Participants: all COSMO partners

Status: **Approved by STC on 8 June 2018, work in progress**

NB: an overarching COSMO project

PP APSU (WG7)

Title: Ameliorating Perturbation Strategy and Usage of ensemble systems

Leader: Chiara Marsigli

Aim: to ameliorate the convection-permitting ensembles by (i) improving the perturbation strategy, and (ii) improving the post-processing methods

Duration (start and end dates): 03.2018 – 08.2020

FTEs: ca. 7

Participants: Arpae SIMC, COEMT, DWD, IMGW, MCH, RHM

Status: **Approved by STC on 2 March 2018, work in progress**

NB: strong co-operation with PP C2I

PT CCE (WG2)

Title: Consolidation of COSMO EULAG

Leader: Damian Wójcik

Aim: to consolidate and further test the COSMO model with EULAG dynamical core for the purpose of an operational use

Duration (start and end dates): 09.2018 – 09.2019

FTEs: 0.8

Participants: IMGW, Uni Cottbus

Status: conditionally accepted by the STC 5 September 2018, final decision is due in March 2019 (or earlier), preliminary work has started

NB: strong co-operation (overlap) with EULAG-related PPs

PP CARMA (WG5)

Title: Common Area with Rfdbk-MEC Application

Leader: Amalia Iriza-Burca

Aim: to replace the existing VERSUS software with the MEC-Rfdbk software as a Common Verification Software (CVS) used to perform part of verification activities within the consortium (the main use of the new CVS will be the production of the Common Plot verification; conditional, spatial verification, etc., can be performed with other tools)

Duration (start and end dates): 10.2018 – 12.2019

FTEs: 4.0

Participants: NMA, COMET, DWD, HNMS, IMGW, MCH, RHM, IMS

Status: conditionally accepted by the STC 5 September 2018, final decision is due in March 2019 (or earlier), preliminary work has started

NB: in the spirit of transition to ICON-LAM

PP IMPACT (WG6)

Title: Icon on Massively Parallel ArchiteCTures

Leader: Xavier Lapillonne

Aim: to adapt the ICON model to run on various architectures such as x86 multicore CPUs and GPU accelerators, focusing on the LAM mode for NWP applications

Duration (start and end dates): 09.2018 – 09.2022

FTEs: 3.35

Participants: MCH, Arpae SIMC, DWD, IMGW, NMA, ...

Status: conditionally accepted by the STC 5 September 2018, final decision is due in March 2019 (or earlier), preliminary work has actually started

NB: in the spirit of transition to ICON-LAM



Thank you!

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PP EX-CELO (WG2)

Title: extension of COSMO-EULAG operationalization

Leader: Zbigniew Piotrowski

Aim: augmenting the implementation of the consistent anelastic/compressible COSMO-EULAG dynamical core within the operational version COSMO, extending the COSMO formulation to fully exploit the lowest model level at the surface specific to COSMO-EULAG A-grid formulation (the proposed effort embraces the data assimilation capability of COSMO-EULAG)

Duration (start and end dates): 03.2017 – 09.2019

FTEs: 3.55

Participants: IMGW

Status: **work in progress**

NB: support from COSMO WG1 is needed

