

SPECIAL PROJECT PROGRESS REPORT

All the following mandatory information needs to be provided. The length should *reflect the complexity and duration* of the project.

Reporting year 2021

Project Title: An Evaluation of the use of Near Real-time CAMS Aerosols in the HARMONIE-AROME NWP model over Ireland

Computer Project Account: SPIEGLE2

Principal Investigator(s): Emily Gleeson

Affiliation: Met Éireann

Name of ECMWF scientist(s) collaborating to the project (if applicable)

Start date of the project: 01/01/2021

Expected end date: 31/12/2021

Computer resources allocated/used for the current year and the previous one
(if applicable)

Please answer for all project resources

		Previous year		Current year	
		Allocated	Used	Allocated	Used
High Performance Computing Facility	(units)			9.9 M	0
Data storage capacity	(Gbytes)			10 TB	0

Summary of project objectives (10 lines max)

To carry out a suite of aerosol tests using the default aerosol climatology, the CAMS climatology and near-real time CAMS aerosols using HARMONIE-AROME and a range of test cases.

Summary of problems encountered (10 lines max)

The work has been delayed to the second half of 2021 due to more pressing priorities during the first half of the year but will commence soon.

Summary of plans for the continuation of the project (10 lines max)

Will commence testing soon using CY43 of HARMONIE-AROME and the HLRADIA radiation scheme as aerosols have been configured with this set-up. Will include other HIRLAM scientists on the project to test a wider range of cases and variables.

List of publications/reports from the project with complete references

To be done.

Summary of results

If submitted **during the first project year**, please summarise the results achieved during the period from the project start to June of the current year. A few paragraphs might be sufficient. If submitted **during the second project year**, this summary should be more detailed and cover the period from the project start. The length, at most 8 pages, should reflect the complexity of the project. Alternatively, it could be replaced by a short summary plus an existing scientific report on the project attached to this document. If submitted **during the third project year**, please summarise the results achieved during the period from July of the previous year to June of the current year. A few paragraphs might be sufficient.

As the work has not commenced, I will not include results here. However, the work will continue on from our work in the following publication:

Rontu, Laura; Gleeson, Emily; Martin Perez, Daniel; Pagh Nielsen, Kristian; Toll, Velle. 2020. "Sensitivity of Radiative Fluxes to Aerosols in the ALADIN-HIRLAM Numerical Weather Prediction System" *Atmosphere* 11, no. 2: 205. <https://doi.org/10.3390/atmos11020205>