

EMI R&D PROJECT PROGRESS REPORT

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

Reporting year2026.....

Project Title: ...Sensitivity of atmospheric circulation anomalies to local processes, feedbacks and resolution
.....

Computer Project Account:spgbwool.....

Principal Investigator(s):Tim Woollings

.....

Affiliation:University of Oxford

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

Start date of the project:2026.....

Expected end date:2028.....

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) | | | 90M | 653 |
| Data storage capacity | (Gbytes) | | | 90000 | |

Summary of project objectives (10 lines max)

.....To test hypotheses for explaining the signal to noise problem in seasonal forecasts of the North Atlantic Oscillation
.....
.....
.....

Summary of problems encountered (10 lines max)

...No real problems have been encountered, although research staff recruitment has taken a while so we are just getting going.
.....
.....
.....

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

...The project will continue as planned, with staff now in place and experiment design underway.
.....
.....

List of publications/reports from the project with complete references

...None yet.
.....
.....
.....

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.

.....
Some initial tests have been performed, including with the Flowsieve coarse-graining software which will be used to diagnose energy fluxes between scales. We aim to start running experiments with the seasonal forecasting system soon. This will likely be in an atmosphere-only configuration, at least initially, and the focus at this stage is on identifying the drivers of NAO signals in particular target winters.

.....
.....
.....
.....
.....
.....