



# Ec-Earth - OASIS-MCT



## ***Switching from OASIS3 to OASIS3-MCT (prototype) on Ec-Earth***

Modification of IFS and NEMO interfaces:

- easy (only « USE mod\_prism » instructions differ)
- more demanding (argument arrays size)
- namcouple changes

To be done:

- few functions not yet available (BLASOLD)
- LAG option restriction (no negative lag)

**> BACKWARD COMPATIBLE <**



# Ec-Earth - OASIS-MCT



## Tests on Ekman cluster

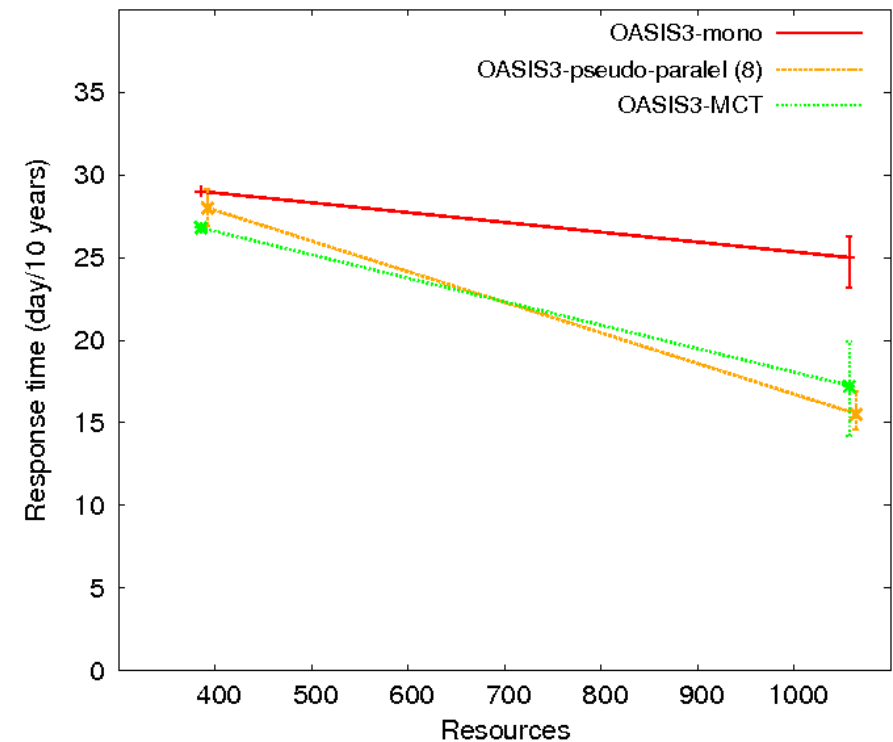
### Comparison with OASIS3 mono and pseudo // OASIS3

- Same performances with (o) 400 PE
- Better than OASIS3 mono with (o) 1000 PE

To be confirmed:

- Instrumenting codes
- Increasing ressources # (porting on curie)
- Change calling sequence ?

Ec-Earth HR model performances (PDC cluster ekman) with different OASIS versions





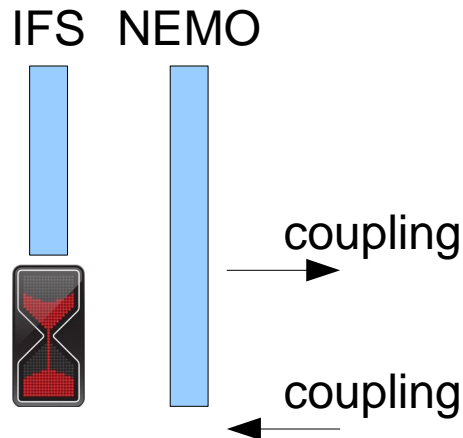
# Ec-Earth - OASIS-MCT



## EC-Earth coupling sequence

### IFS/NEMO parallel

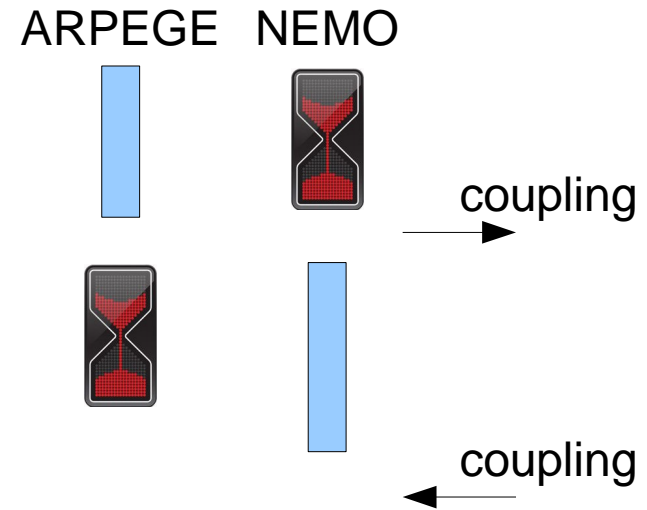
- only one model is waiting the other
- OASIS extra cost could be partly hidden



## ARPEGE-NEMIX coupling sequence

### ARPEGE/NEMIX sequential

- models are waiting each others
- OASIS extra cost could NOT be hidden



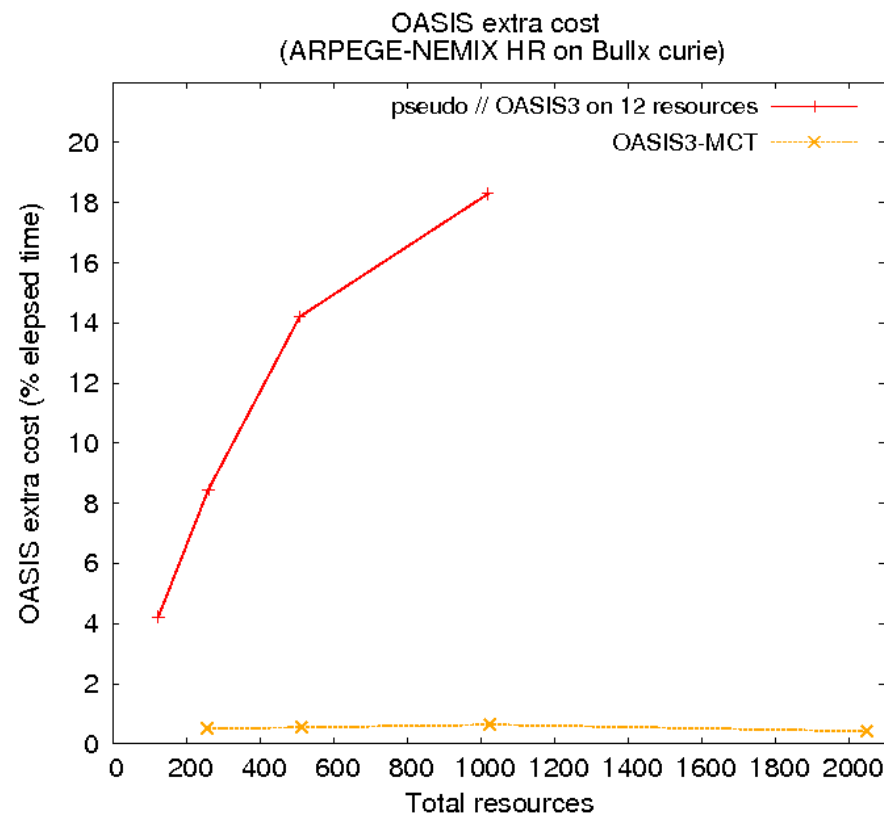
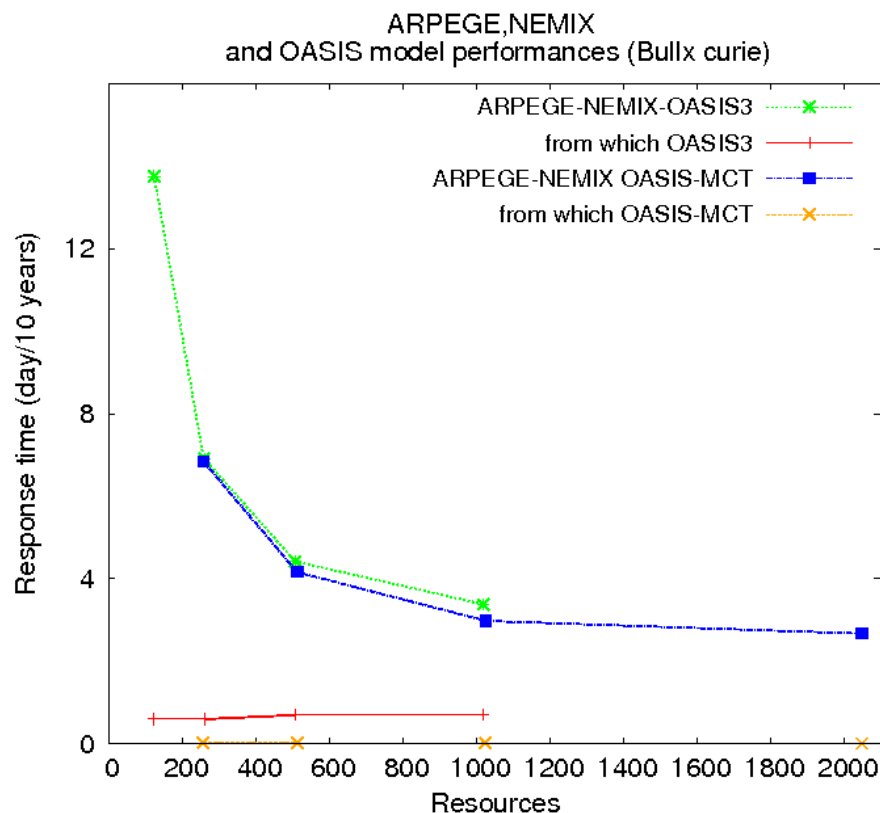


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## Tests on Curie Bullx PRACE tier-0

Comparison with pseudo // OASIS3 using ARPEGE-NEMIX  
On-going results: optimization to be done (load balancing ?)





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OASIS-MCT instead of OASIS3 for present models

