## REQUEST FOR ADDITIONAL RESOURCES IN THE CURRENT YEAR FOR AN EXISTING SPECIAL PROJECT

<b>MEMBER STATE</b> :	Spain
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Project title:	CMIP6 BSC contribution to HighResMIP (HighResMIP_BSC)

Project account: SPESICCF

Additional computer resources requested for	2018
High Performance Computing Facility (units)	8.000.000
Data storage capacity (total) (Gbytes)	

Continue overleaf

<sup>1</sup> The Principal Investigator is the contact person for this Special Project Nov 2015 Page 1 of 2

## Technical reasons and scientific justifications why additional resources are needed

While running our simulations, we have discovered a bug in the EC-Earth model. Certain variables are exhibiting artificial "wholes", which appear to be stationary (see figure below, left hand side). This effect is visible in surface radiation and low and medium cloud cover and occurs in the raw model output and is thus not a post-processing issue. We suspect this problem might be related to the way radiation is computed with different domain decompositions, which somehow creates gaps in the fluxes. The issue is currently under investigation, but what is clear is that some additional test will need to be done and we will need to rerun part of the simulation that was impacted. We estimate that an additional 8M SBU to tie us over until the end of the year would be sufficient. No change in the storage space is required.

