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CRICOS Provider No. 00120C

Re: Letter of Support for the Earth Systems Grid Federation (ESGF)

Dear Sir or Madam,

The Earth Systems Grid Federation (ESGF) is a unique global organisation and infrastructure that underpins the management, publishing and sharing of internationally significant reference datasets. In particular, the ESGF underpins the Coupled Model Intercomparison Project (CMIP) as the main repository for the model data for the climate community. As the largest federated repository of its kind, it provides the major underpinning collaborative infrastructure that supports reproducible research and contestable outcomes. With the data volumes escalating, the international federated model of the ESGF allows for each major country to contribute the costs of their required infrastructure as well as working in a coordinated fashion for a single distributed archive.

The technical challenges and advancement in global-scale data management and analysis at this scale requires a major effort to bring the best practice to bear. The ESGF includes many of the international major facilities involved in Environmental and Earth systems data. This spans a wide range activities: managing and delivering large-scale data efficiently in a timely fashion over international research networks; ensuring that the data is held and citable using modern citable methods suitable for third party analysis and publication; and how to ensure that the data is ready for analysis next to modern computational systems and capability.

NCI is a major Australian national infrastructure supporting the research community in high performance computing, data management and data analysis. It has a national focus to assist the research community in Earth systems, Earth observation, climate, weather, water management and hydrology and geophysics, which supports collaboration between the university research community and the national agencies. The major national activity in computation and data analysis takes place at the facilities managed at NCI. This includes a top 100 supercomputer (Raijin), cloud systems, and storage infrastructure. As the major coordination point for this data, NCI supports a major ESGF node to make the Australian model data available internationally for the international model intercomparison projects (MIPs), and to replicate international data for local analysis.

I strongly support the ongoing need for the ESGF, which we will continue to contribute to its development and operation for the value of our research community.

Yours Sincerely,

Ken Jam