

Platform for Environmental Modelling Support: a Grid Cell Data Infrastructure for Modellers

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Grid cell based data, also called raster data has been a popular data format used in models for spatial analysis and decision making. This often requires a process of rasterisation, a time consuming overhead, to put data into a format suitable for use by models. Unfortunately this type of data is often missing in Australia Spatial Data Infrastructure. It is with this need of modellers in mind that the Platform for Environmental Modelling Support (PEMS) was originally conceived and currently being developed as a demonstrator project, funded by the Cooperative Research Centre for Spatial Information.

PEMS would support four groups of users, namely, modellers, GIS analysts, business managers/ professionals, and data custodians. Underpinned by a national nested grid and the associated data model, PEMS seeks to develop efficient and economic means of managing multi-scale and time series data, publishing, extracting and packaging the data to support modelling, simple spatial queries, reporting and data sharing needs of these users. The potential of these innovatively packaged capabilities of PEMS would be demonstrated in conjunction with models such as CAT, SLEUTH, LUIM wild fire consequence model, agriculture productivity model and with a proposed e-Science platform of Ecoinformatics in Victoria.