

Australia's Marine Virtual Laboratory (MARVL)

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A new development in modelling frameworks for researchers in Australia.

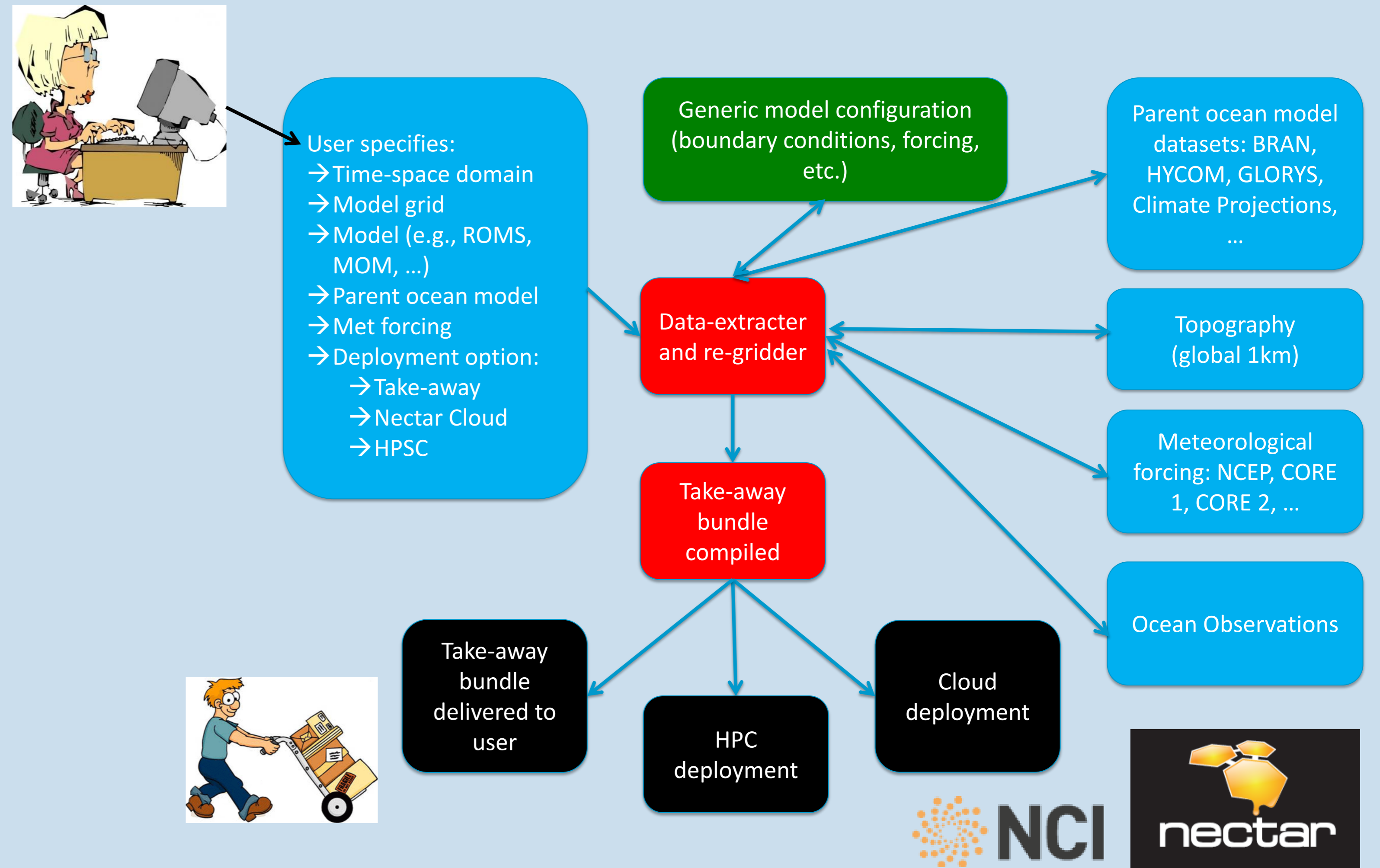
MARVL, uses the TRIKE framework, a java-based control system, allowing a non-specialist user to configure and run a model, automating many of the modelling preparation steps needed to bring the researcher faster to the stage of simulation and analysis.

The tool is seen as enhancing the efficiency of researchers and marine managers, and is being considered as an educational aid in teaching.

MARVL: a web-based application which provides:

- a range of different community ocean and wave models* with selectable model specifications,
- configuration for a region and a time period, through a user-friendly web application,
- selectable initial and forcing data,
- discovery of ocean data for validation,
- the assembled configuration suitable for
 - submission to a cloud environment
 - submission to a HPC environment
 - download datasets to run on your computer

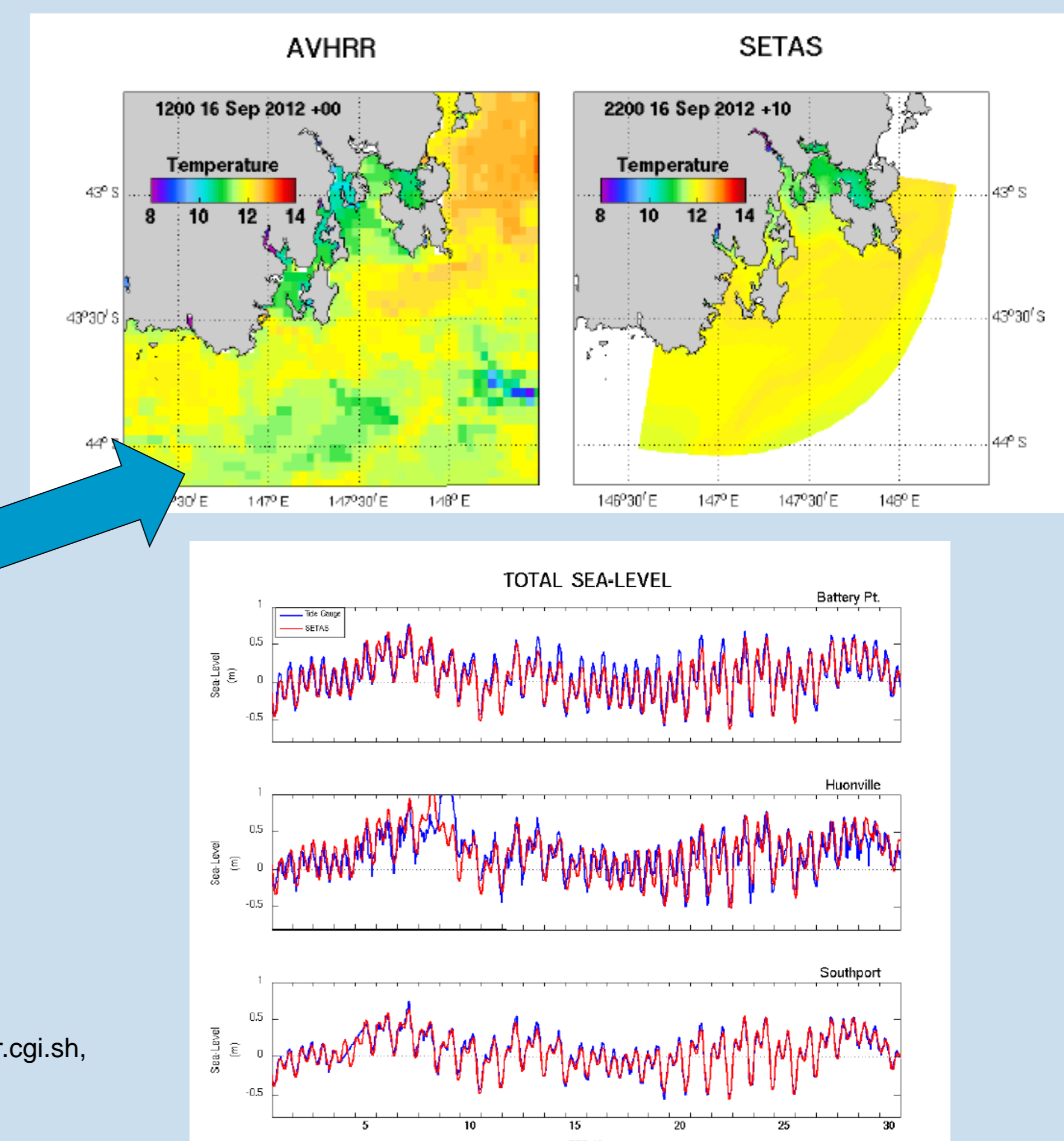
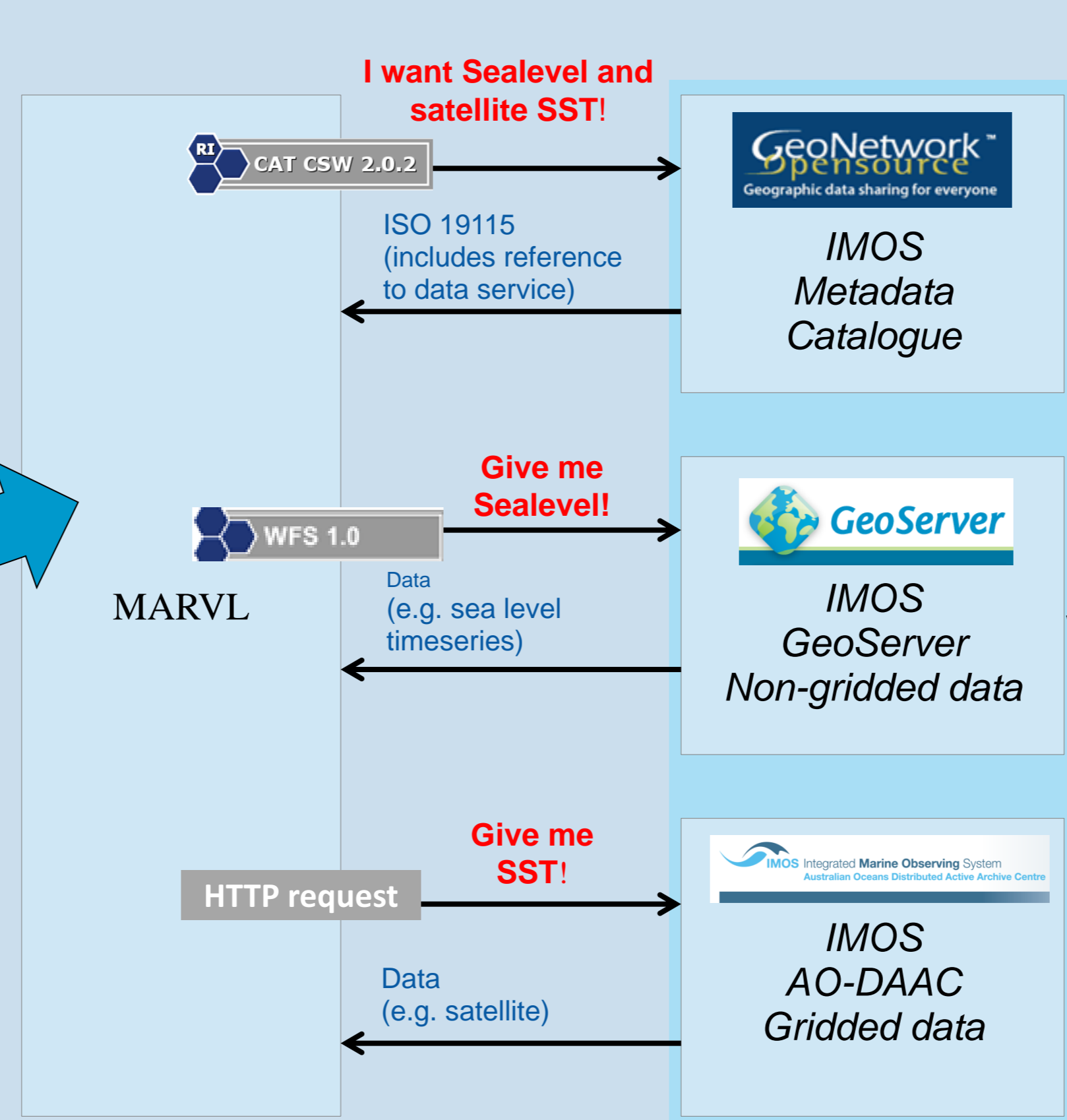
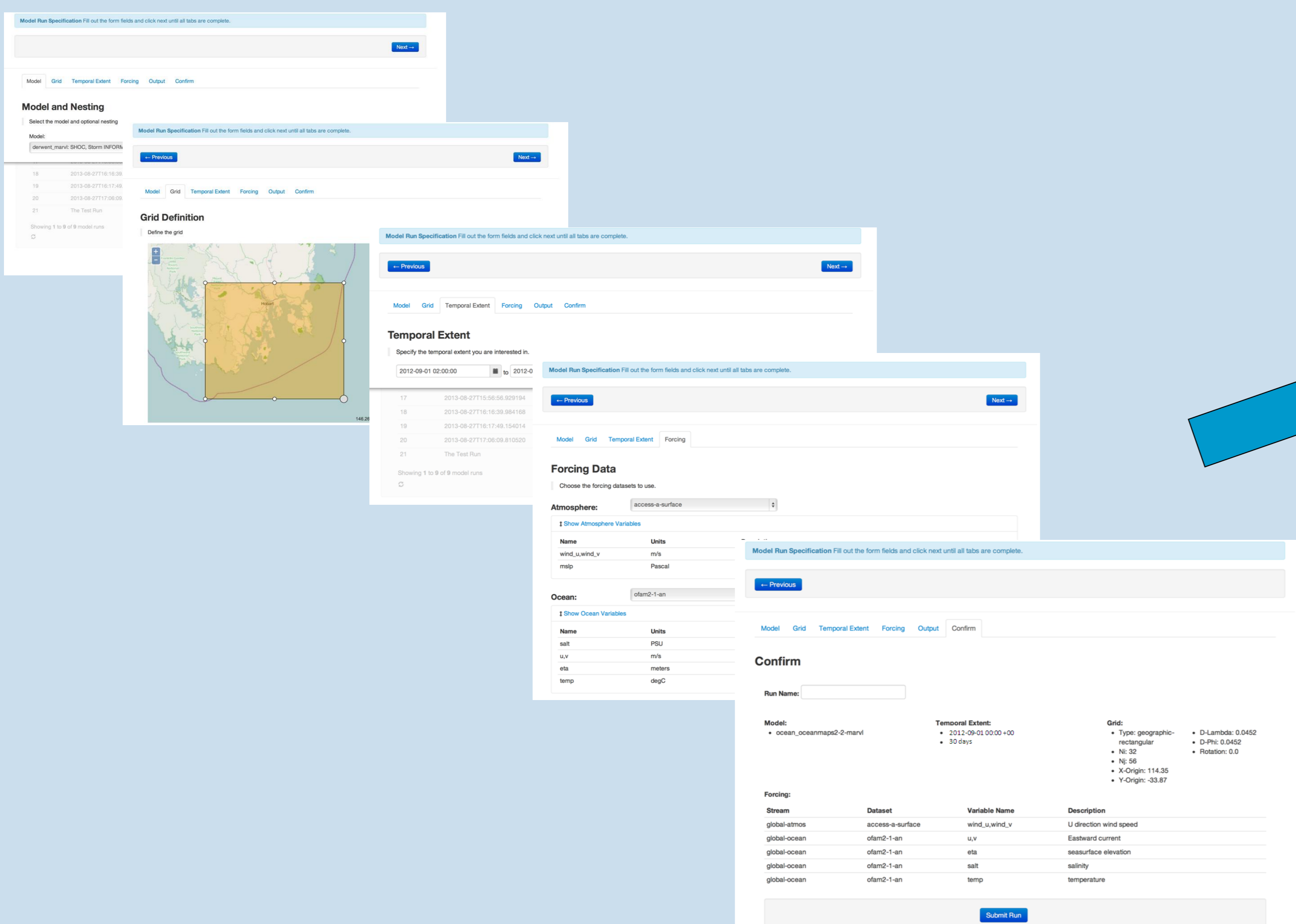
* Initially ROMS, SHOC, MOM, WW3, SWAN



Step through the menus

Get the observations

Run the simulation



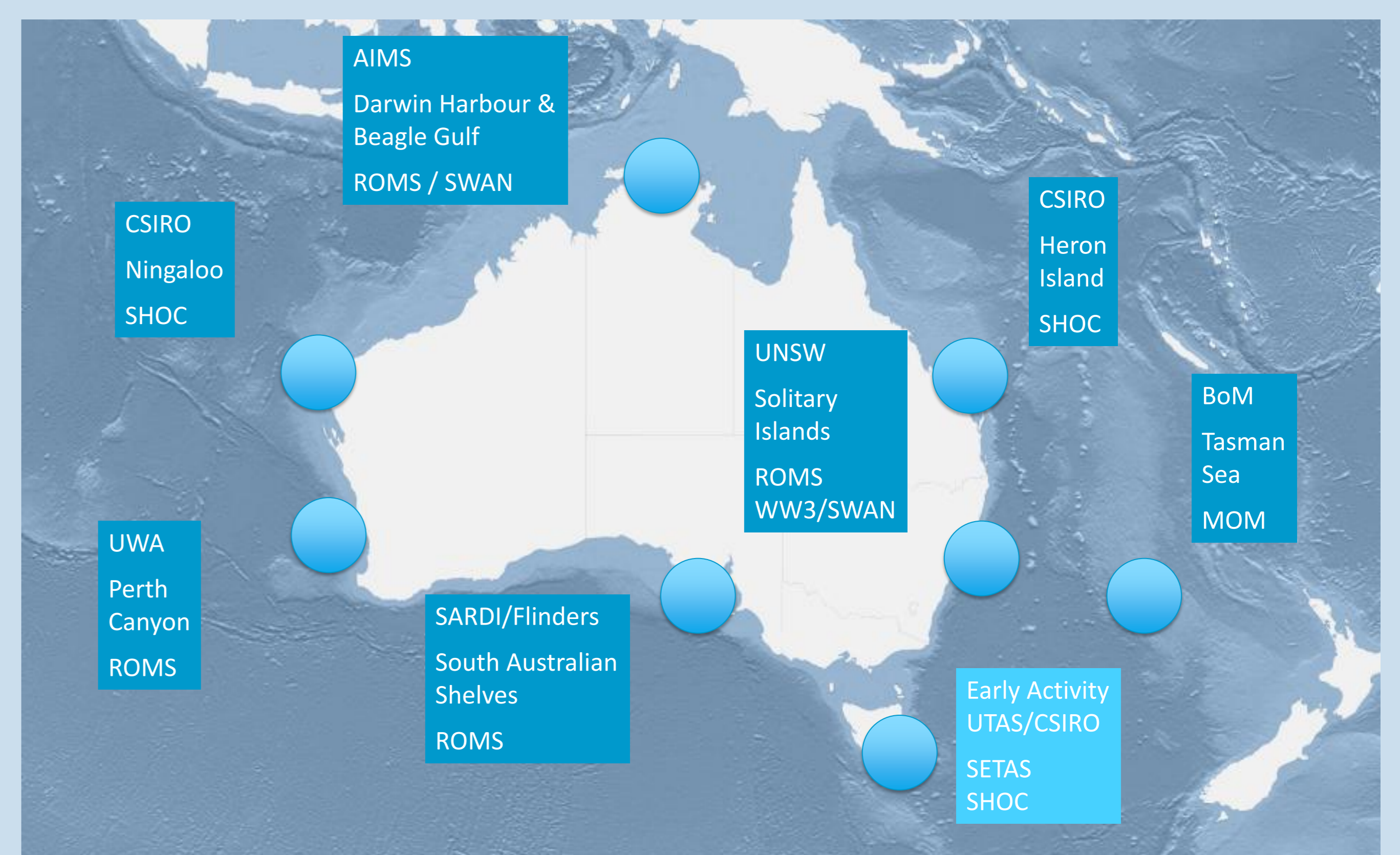
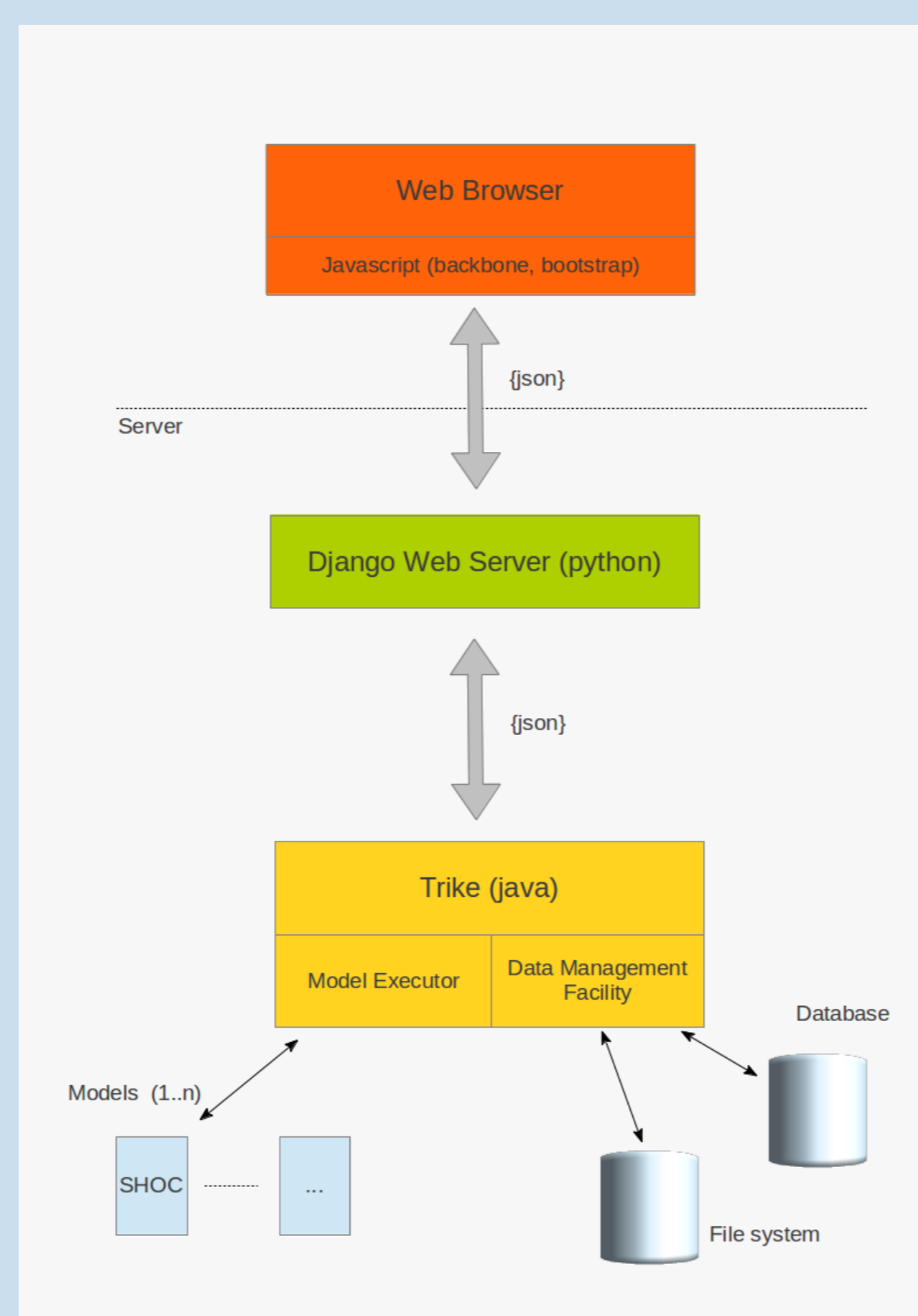
Sample SST request:
<http://vm-115-33.ersa.edu.au/cgi-bin/IMOS.cgi?prod,startBackgroundAggregator.cgi.sh.nc,20100901,20100930,0000,2400,-44.0,-42.5,146.0,148.5,10>

Dashboard monitor

It works like this

Next steps, thorough testing

Run ID	Name	Start	Stop	Status	% Complete
102	ofam21 test Perth	1993-01-01 00:00:00	2013-09-04 00:00:00	Aborted	0
101	reanalysis model	1993-01-01 00:00:00	2013-09-01 00:00:00	Aborted	0
100	estuary flow	2012-12-19 00:00:00	2013-01-10 00:00:00	Postprocessing	80
99	parked model template	1993-01-01 00:00:00	2013-09-04 00:00:00	Aborted	0
98	dw run estuary check	2012-11-01 00:00:00	2012-12-25 00:00:00	Postprocessing	91
97	test derwen_marvl	2012-11-01 00:00:00	2013-01-01 00:00:00	Inprogress	50
96	test ofam	2012-11-01 00:00:00	2013-02-01 00:00:00	Initializing	24



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