



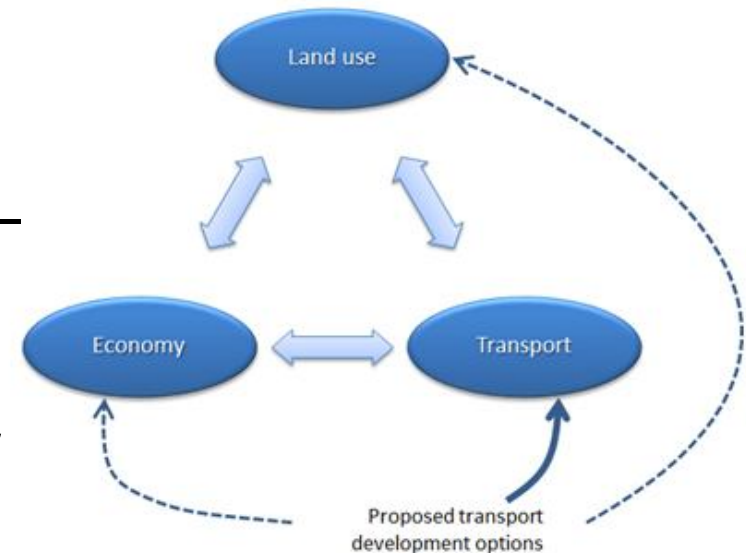
Integrated Scenarios Explorer 'ISE' Economic Module

Dr Garry McDonald

m.e environment

Update of ISE

- Inclusion of **Transport and Stormwater** sub-modules – prototype developed
- **Upgrade of Land use sub-module** - incorporating population and employment densities, mixed land uses – nearing completion
- **Upgrade of economic-sub-module** - prices, labour and capital markets – fully dynamic equilibrium seeking CGE model – at journal
- Inclusion of additional indicators – GPI, EF
- **Zoning and Land use map validation** – GW TAs, AC – zoning nearly completed



ISE integrated sub-modules V1.0

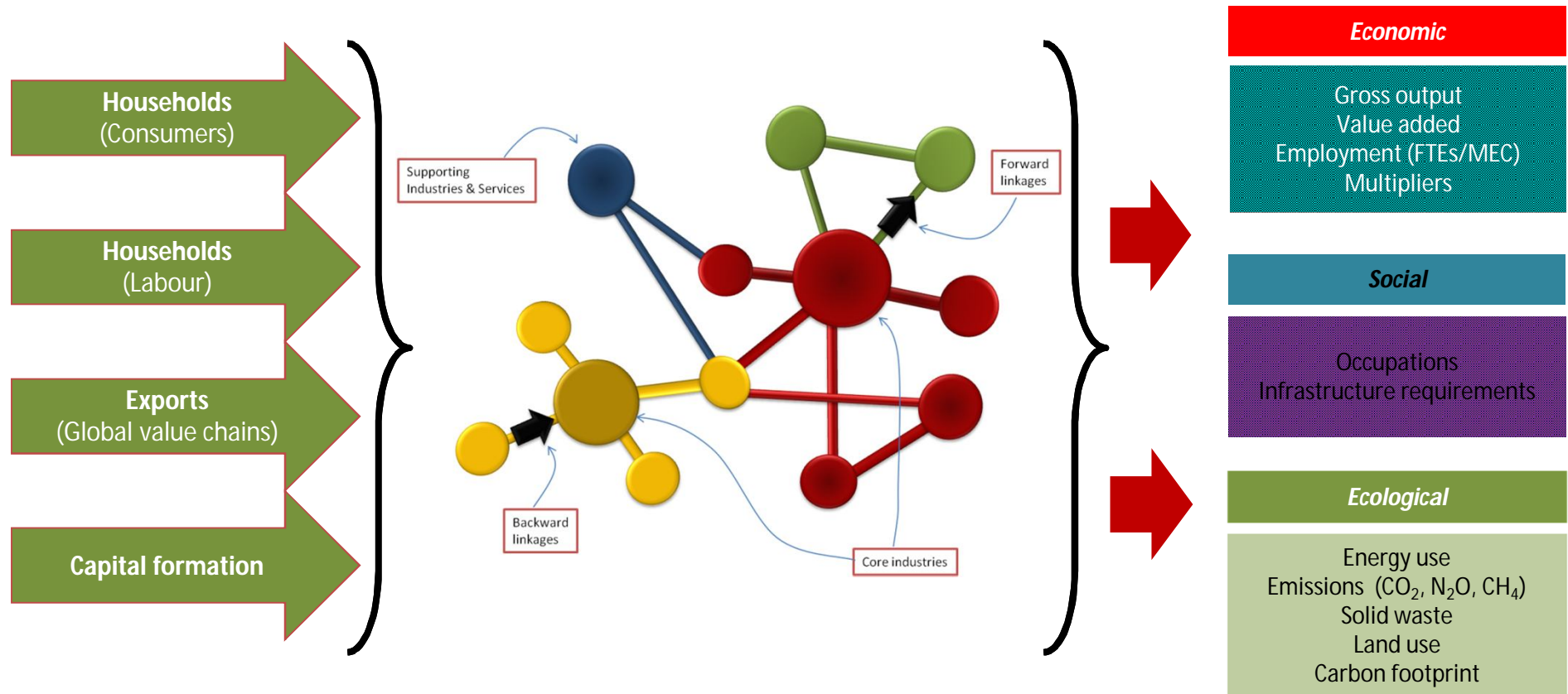
The image displays the Sustainable Pathways DSS software interface, which integrates Economics and Land Use modules. A flow diagram on the left shows the interaction between these two modules. The main window is titled 'Sustainable Pathways DSS - Auckland Preliminary Calibration' and features a menu bar (File, Simulation, Maps, Options, Window, Help) and a toolbar with buttons for Open, Save, Step, Run, Stop, and Reset. The 'Main window' section includes a 'Drivers' panel with a 'Zoning' dropdown, a 'Zoning sub-scenario' dropdown, and buttons for 'Load sub-scenario...' and 'Save sub-scenario...'. Below this is a 'Plans and categories' section with a 'Category precedence' dropdown and a table of land use types.

Category	Plan	Zoning status	Start time	End time
★ Suburban Centre	Wellington city council zones 2007	Prohibited		
★ Enviro/Heritage	Regional open space	Non-complying		
★ Informal Recreation/Leisure	Regional open space	Restricted discretionary		

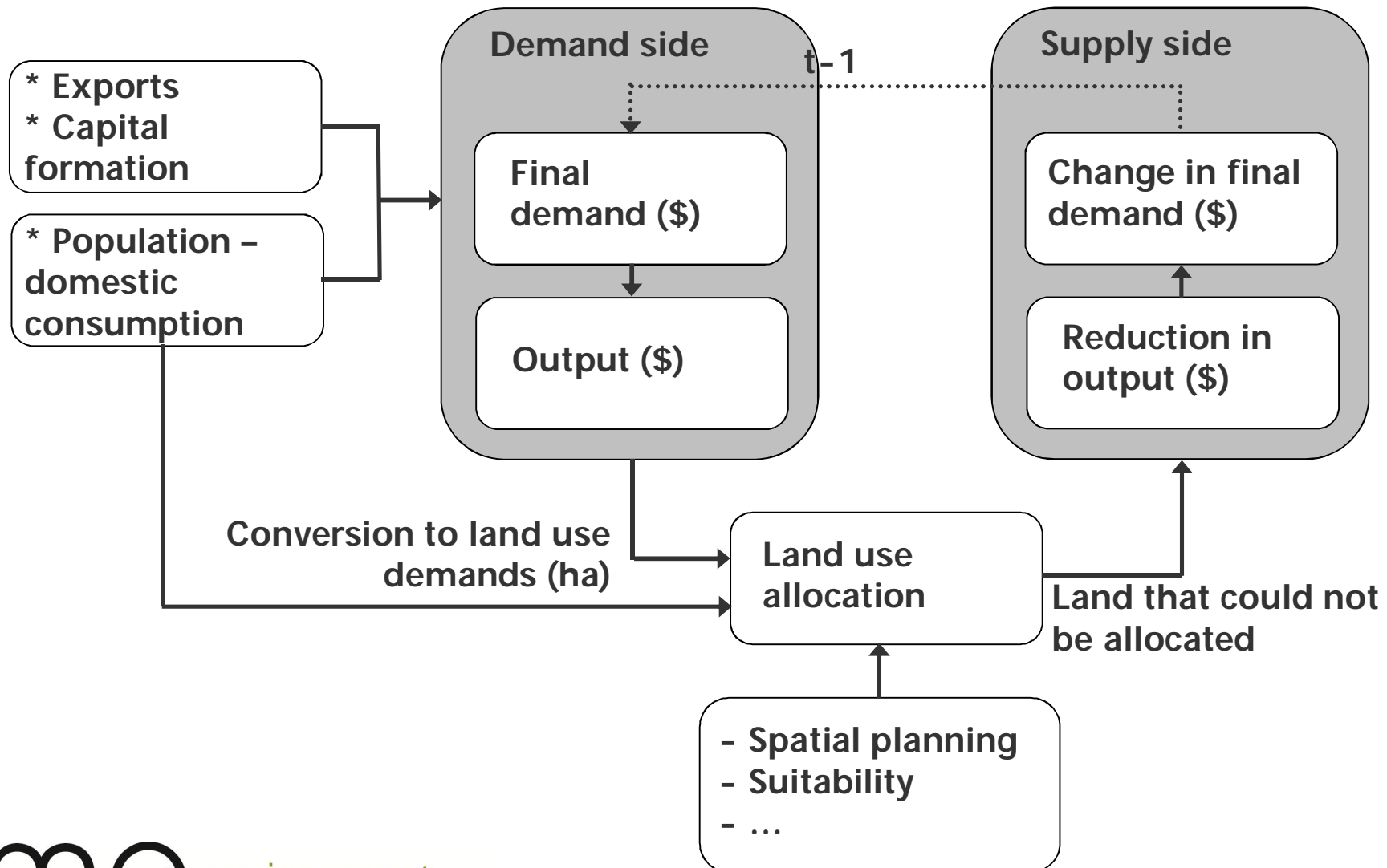
The 'Land use map' panel shows a list of land use categories with corresponding color swatches: Livestock farming and cropping (orange), Dairy cattle farming (green), Other farming (light green), Exotic forest (dark green), Industrial (purple), Hospitality (pink), Commercial (magenta), Central government (blue), Residential - low density (light red), Residential - medium density (red), Residential - high density (dark red), Education (light purple), and Culture and recreation (brown). A map of the region is displayed, showing various land use patterns. A 'LayerManager' panel on the right lists layers such as 'Region boundaries', 'Network layer Roads_network', 'Network layer Railways_network', 'Network layer Airports', and 'Land use map'. The 'Zoom tools' and 'Grid tools' sections are also visible.

m.e environmental engineering
sustainable pathways

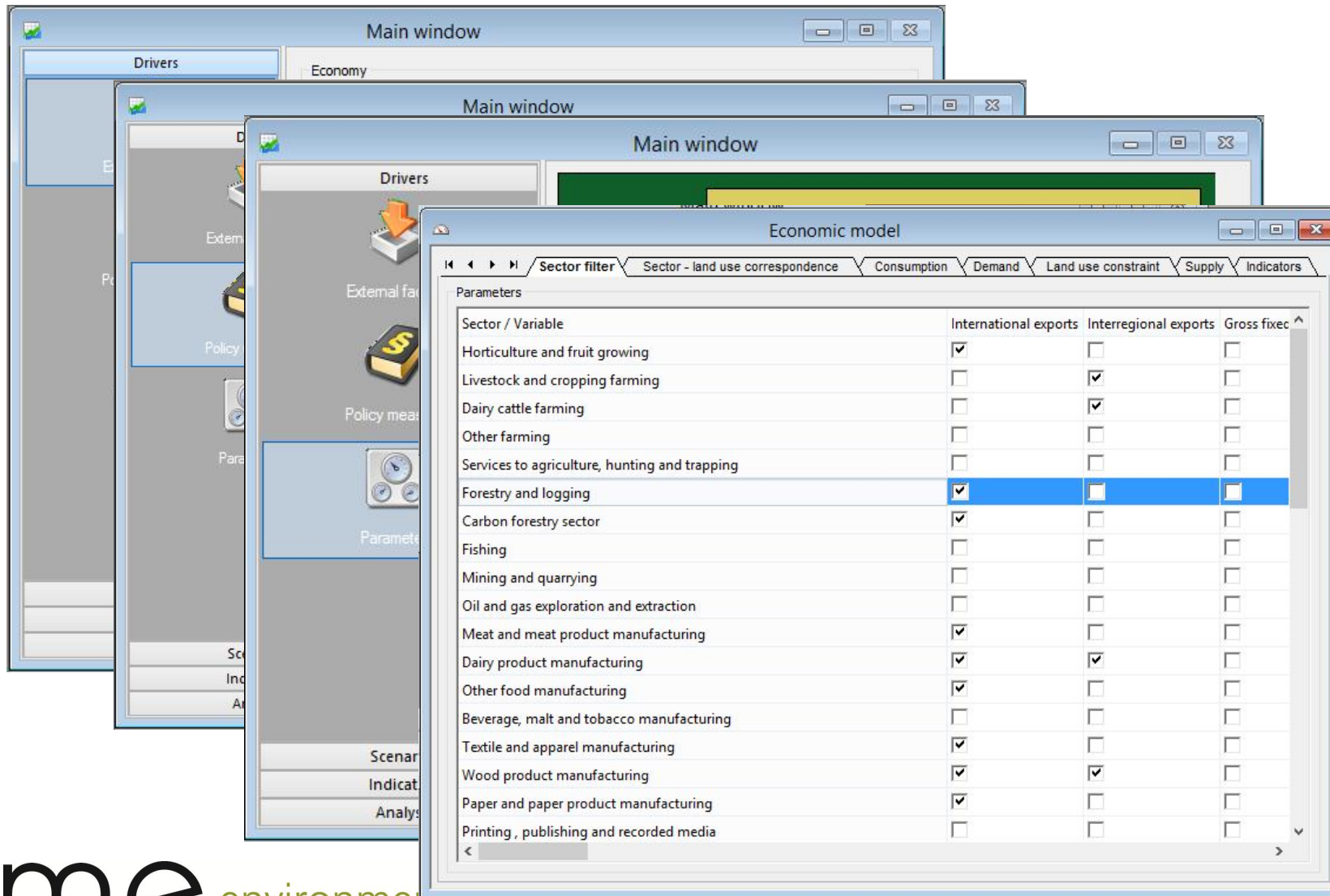
Economic model



How does the ISE economic model work?



ISE Economic interface

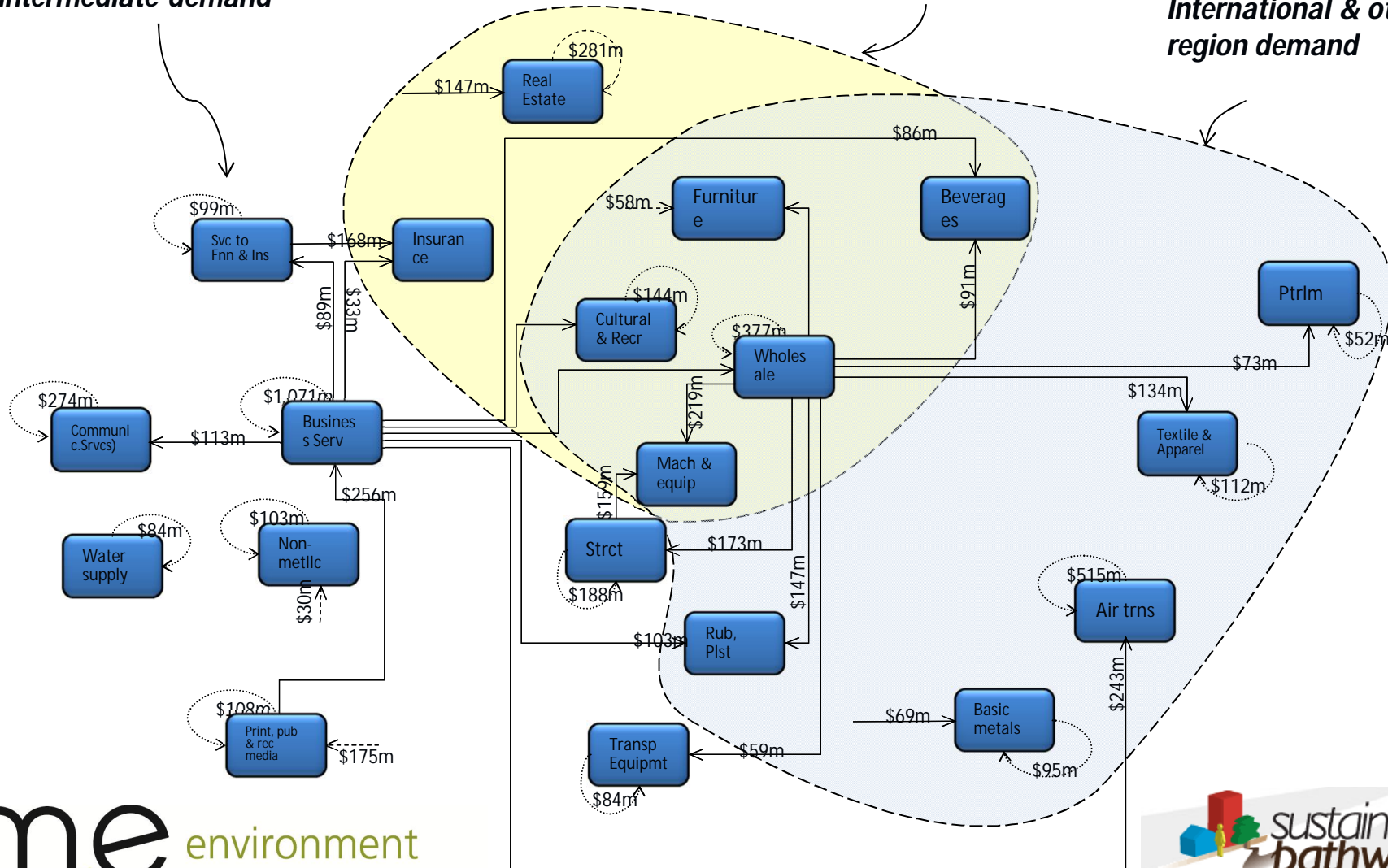


Economic sub-module

Industries driven by intermediate demand

Industries driven by local demand

Industries driven by International & other region demand



Dynamic economic model

