



MSD-CSIRO Urban Sustainability PhD Scholarship Program

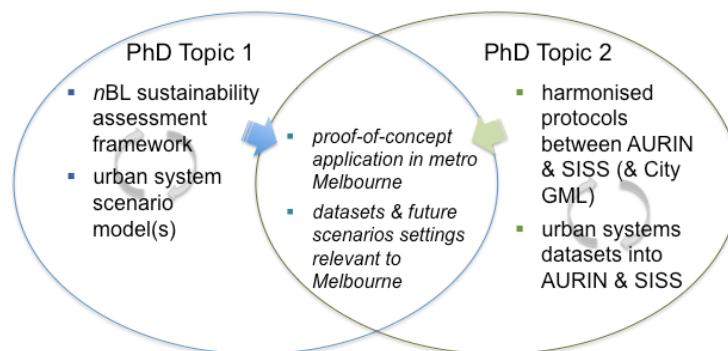
The MSD-CSIRO Urban Sustainability PhD Scholarship Program supports outstanding PhD candidates taking a **science-based and data-informed approach to urban sustainability**.

This scholarship provides fee remission, generous stipend (up to AUD\$30,000 p.a. tax free) for up to 3.5 years and a research allowance. Successful candidates will be co-supervised by leading experts from the CSIRO and the University of Melbourne's Melbourne School of Design, Faculty of Architecture, Building and Planning including the Australian Urban Research Infrastructure Network (AURIN) and will benefit from the resources and networks of both organisations.

This program is open to both domestic and international students. Successful applicants will enrol in a PhD at the University of Melbourne in 2014 and undertake a research project at both the University of Melbourne and CSIRO.

Flagship PhD Projects to commence 2014

The overall MSD-CSIRO collaboration aims to develop an approach to urban sustainability assessment considering a range of endogenous and exogenous factors (including urban policy and actions by a range of key stakeholder groups), and the impacts of natural and/or man-made disasters and environmental change (including climate). The following two PhD project topics are envisaged to eventually develop a proof-of-concept of a model (or set of models) and workflow that integrates **three key goals** applied to metropolitan Melbourne.



PhD Topic 1:

Developing n-bottom line sustainability assessment system for urban scenarios analysis.

This will focus primarily on the program's first two key goals:

1. Development of evidence-based n-Bottom Line (nBL) sustainability assessment framework that aligns with the UNEP Melbourne Principles for Sustainable Cities, builds on most recent international efforts on urban sustainability assessment systems, and includes environmental quality, economic quality and social or urban quality of life indicators
2. Development of an urban systems scenario model (or set of models) that can be used to evaluate impacts of different or alternative future urban scenarios on nBL criteria. The effort is envisaged to be iterative between the two elements, using a realistic context of application, in this case metropolitan Melbourne (see diagram, middle).

The effort is envisaged to be iterative between the two elements, using a realistic context of application, in this case metropolitan Melbourne. The Australian Urban Research Infrastructure Network (AURIN) has a rich set of data available for Melbourne and e-Tools that will can be utilised to support the sustainability assessment and urban scenario modelling.

PhD Topic 2:

Developing harmonized urban information system for improved decision-support

This will focus primarily on the **program's third key goal**:

3. Linking or utilising the scenario model(s) to the **urban research e-infrastructure** being developed by the [Australian Urban Research Infrastructure Network \(AURIN\)](#), which provides access to datasets and facilitated data integration and interrogation, combined with AusScope's Spatial Information Services Stack (SISS) protocols, with interoperability made possible via the City Geographical Markup Language (CityGML) initiative..

The project will seek ways to harmonize urban data interchange and information interoperability between AURIN and SISS with a focus on the use of the CityGML Information Model (see diagram, right). The development of harmonised protocols and information systems and the collection and management of urban datasets are envisaged to be iterative, and consider in general the Australian urban context, and in particular, metropolitan Melbourne (see diagram, middle).

Eligibility

To be considered, applicants must meet the Melbourne School of Design's minimum entry requirements for graduate research degrees. Details of these requirements can be found at <http://msd.unimelb.edu.au/how-to-apply>.

Timeline

Applications are now open.

The Expression of Interest form will be used to select shortlisted candidates who will then be contacted and assisted in their application for admission to the PhD program at the University of Melbourne.

- Expressions of interest close **30 September 2013**
- Shortlisting will take place in early October. Invited applicants to submit full application by **31 October 2013**.
- Final selection and allocation will take place in **November 2014**
- Commencement of PhD will occur from **mid-January, 2014**.

Enquiries

Please contact:

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