

You don't have to be psychic to predict the future

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A team of researchers from UQ's Institute for Social Science Research (ISSR) has proved you don't have to be psychic to predict the future.

Led by Professor Bob Stimson, and funded through an ARC Linkage grant, the research group has developed a suite of models that simulate potential patterns of population and housing growth, and the location of jobs, across the South-East Queensland region.

"We've been developing this modelling capability over the past three years, and it's now fully operational," Professor Stimson said.

"The models operate until 2026 and can simulate the future structure of phenomena such as population and housing growth on 1km x 1km grids, and simulate potential future patterns of the location of jobs in industry sectors across the hundreds of suburbs that make up the SEQ region."

The Large Scale Urban Model (LSUM) is dependent on a number of accurate spatial databases, many of which have been provided by state government departments.

"The models can't tell us what will actually happen but they are able to simulate potential urban futures based on alternative planning and development assumptions," Professor Stimson said.

"Those might include an urban growth boundary, variable housing densities, transport oriented developments, new transport infrastructure



provision, and so-on.

"The SEQ LSUM is more of a 'what if' model where various scenarios for spatial patterns of potential development under different regional planning constraints and opportunities might be tested and evaluated."

The research project, which has been conducted within ISSR and involves staff and graduate students from the School of Geography, Planning and Architecture, is due for completion at the end of this year.

The study has been a joint venture between the UQ researchers and the Office for Economic and Statistical Research in Queensland Treasury.

"As well as developing the operational models for the SEQ region, the research has produced significant innovation in spatial modelling methodologies and the publication of scientific papers in international journals," Professor Stimson said.

"Nothing else like this is being done in Australia."

Source: The University of Queensland

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