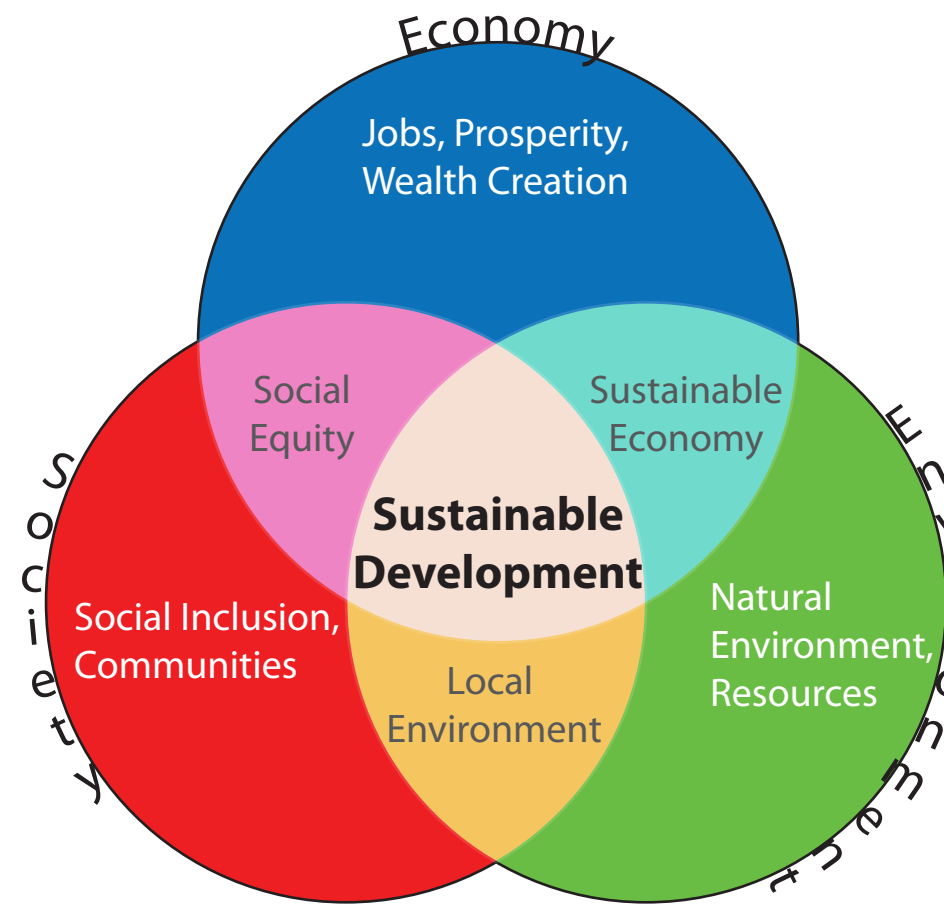


Visualising Sustainable Cities

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Background

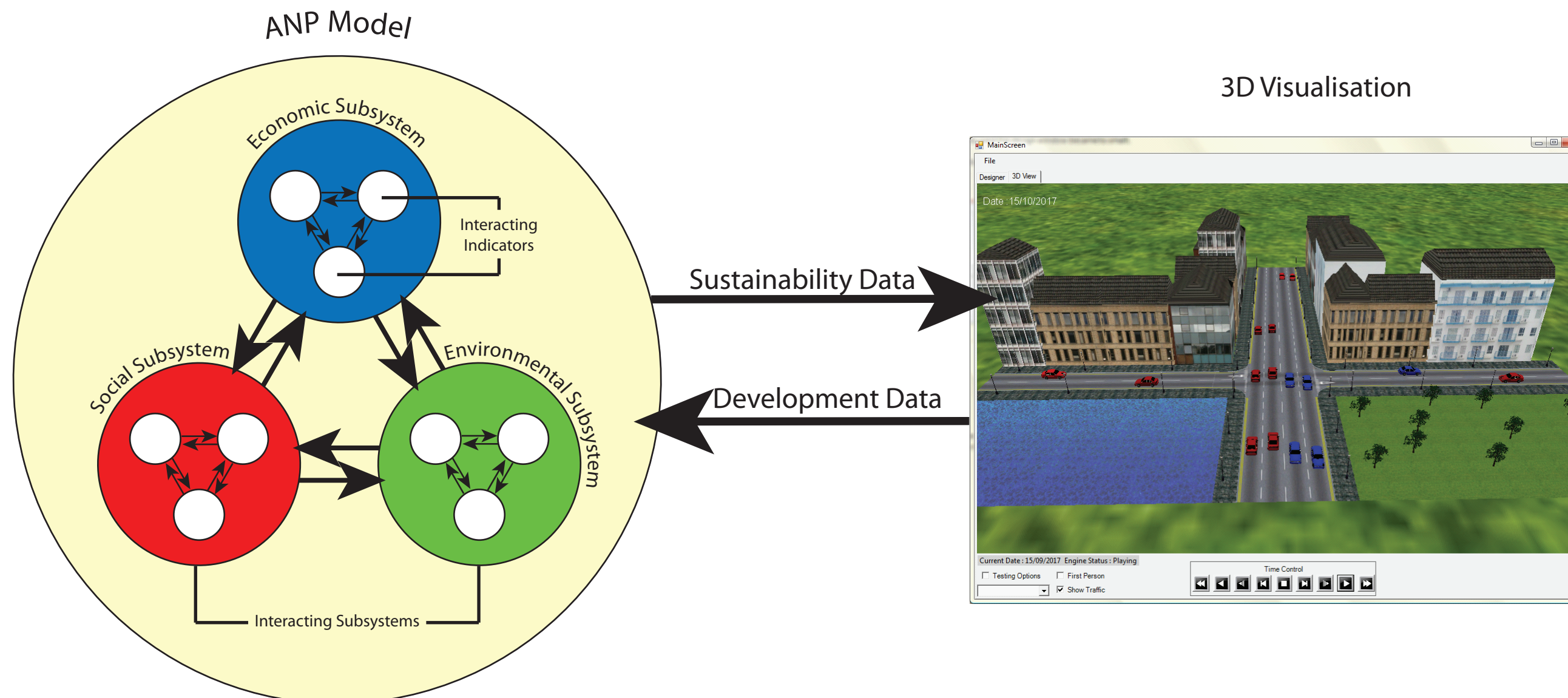
Incorporating sustainability in urban development is extremely complex as it requires the consideration of a wide variety of interacting social, economic and environmental impacts on the city or area being developed. The task is made more difficult due to the wide variety of stakeholders (e.g. Planners, architects, businesses and the public) which must be involved in any decisions made about their city.



A number of sustainable decision support tools have previously been developed but a major barrier to the implementation of these tools is the complexity of the factors which must be addressed before any decision is made. Engagement with the general public throughout the decision making process presents particular challenges. These include communicating the complex and interdependent facets of sustainability and also demonstrating the short and long term implications of alternative courses of action.

A Different Approach

It is the aim of the research is to create a prototype visualisation tool (S-City VT) that will allow stakeholders to understand, interact with and influence decisions made regarding the sustainability of an urban development. S-City VT models the interactions between the various sustainability indicators, using the analytical network process (ANP) methodology.



The results of the ANP model are shown to the stakeholder in a completely unique way using a 3D visualisation tool. By taking this approach S-City VT allows stakeholders completely unfamiliar with the concept of sustainability to see in “real life” not only what the decisions they have taken will look like, but they can also see the effect they will have on the environment, the economy and the population.