



## How SuBET Promoted Sustainability in Built Environment Projects

The Sustainable Built Environment Tool (SuBET) is a package that helps to ensure the environmental, social and economic sustainability of large scale building projects. It has its roots in the SUE consortium IDCOP and was developed into a commercial tool by IDCOP researchers and engineering consultancy Hilson Moran. As a result of this collaboration, the SuBET has been used to foster sustainability in construction and masterplanning projects across the world.



## SUE SUCCESS STORY

The Sustainable Built Environment Tool (SuBET) was developed by two IDCOP researchers, Professor Derek Clements-Croome (University of Reading) and Dr Husam Al Waer (now a lecturer at the University of Dundee), and Matt Kitson of multi-disciplinary engineering consultancy Hilson Moran.

The team came together upon the completion of the IDCOP project when Professor Clements-Croome invited Matt Kitson to critically review the various frameworks the research team had developed. As part of their dissemination efforts, the team also ran a series of workshops at Hilson Moran.

It was at this point that Matt Kitson, driven by his interest in sustainability and masterplanning, saw the potential for taking IDCOP's work further, in particular the assessment framework developed by Dr Al Waer during his PhD.

As well as the ignition created by this marriage of Hilson Moran's own research interests with that of the two academics, the team were also driven by their knowledge that a tool of this kind would plug an obvious gap in the market. Very few methodologies existed around the world that addressed the economic, social and cultural aspects of city scale design, so a framework of this kind, specifically for sustainable masterplanning, was crying out to be developed.

After identifying this gap in the industry and the potential of the existing research outcomes, the three worked together over three years to develop the methodology that has evolved into SuBET. The long journey from theory to practice was only possible because of the team's shared interest in urban sustainability and their dedication to making their idea a reality.

### > IDCOP

**Innovation in Design, Construction and Operation of Buildings for People** was a multi-institutional research programme funded under the Engineering and Physical Sciences Research Council's **Sustainable Urban Environment (SUE)** programme.

The project ran from July 2004 to February 2009,

**IDCOP** investigated how to achieve a more sustainable urban environment which would benefit people, the inhabitants and users of these environments, creating a higher quality of life.



## KEYS TO SUCCESS

The successful development of the SuBET tool demonstrates how fostering a wide network of contacts in a range of sectors and engaging with those contacts regularly, can enable research ideas to have an impact in the outside world.

The academic team ensured that engagement with the practitioner community was built into the project structure from the beginning, so that the eventual application of their research ideas was more likely to be realised. As well as involving project partners like *Arup*, *Sustainable Homes* and the *Housing Corporation* from the start, IDCOP also built practitioner dissemination routes into the project, including the consultation period with Matt Kitson and the dissemination workshops at his firm, Hilson Moran. This sustained contact between researcher and practitioner throughout the project's lifecycle created the environment for new ideas to flourish and develop - in this case, into the SuBET tool.

Personal connections also had a part to play. Matt Kitson had an existing interest in the sustainability of urban environments and his contact with Professor Clements-Croome went back over several years, with the former contributing to the Professor's Masters programme as a guest practitioner lecturer. These personal connections and the alignment of interests led to the formal engagement and sustained relationships of the three protagonists, and in turn the eventual creation of the tool.

Yet ultimately it was the academics' and their practitioner partner's commitment to further developing their research outcomes and ideas that enabled the evolution of their work and its eventual application to building projects all over the world.

### > SuBET in Practice

As a first benchmarking activity Hilson Moran used SuBET on a major masterplan in Milan. And subsequently on the King Abdullah City for Atomic and Renewable Energy in Riyadh, Saudi Arabia.

Latterly, Version 2 of SuBET was applied to the Greenwich Peninsular development, adjacent to the Millennium Dome.

### LESSONS LEARNED

#### > **Make and maintain relationships with experts in different sectors**

Make the most of them by staying in contact and sharing ideas. Having a large network of contacts is worthwhile only if it is put to productive use.

#### > **Connecting with people and sharing ideas can have unexpected consequences**

Areas of mutual interest can often be revealed through discussions on a completely different topic.

#### > **Knowledge exchange can be beneficial for both researchers and practitioners**

Researchers can have the satisfaction of seeing work used in real world applications, and practitioners can have the chance to build on cutting edge research.