With the danger that inertia on the part of the local and regional government may inadvertently stifle the growth of the regional economy, and the consequential loss of economic opportunity for the UK, there is now general agreement among stakeholders that there is an urgent need for strategic action. Hence, the pressing question for Cambridge and many other similar cities and regions is how to achieve 'desirable' expansion, permitting the growth of businesses and employment, without destroying the distinctive Cambridgeshire environment?

Over the past few years the city and the region have started to address these issues; regional and local plans have been developed in accordance with standard planning procedures. However, there have also been complimentary, but arguably more innovative, attempts at steering growth. The Cambridge Futures Project (Cambridge Futures, 2002) brought stakeholders together, including the university, businesses and the public, to identify a number of alternative forms for coping with the physical growth of Cambridge city. More recently, the UK government and industry sponsored Cambridge–MIT Institute (CMI)[6] commissioned a joint 2-year research project from the Department of Architecture, Cambridge University and the School of Urban Planning at MIT, to explore the relationship between innovation, urban design and sustainability. The project brought together multi-disciplinary staff and postgraduate students from the two universities to explore whether innovations in spatial and physical design, and public policy could create sustainable 'enabling' environments that might foster the development of innovatory, knowledge-based enterprises.

The project's multi-disciplinary remit was partly conceived as a response to widespread concerns expressed in government reports (Burton, 1992; Dearing, 1997; Egan, 1998) about the poor standards of multi-professional working in the built environment, a problem thought to be at least partially the result of the autonomous nature of discipline-specific education, and partially as a response to the multi-dimensional nature of the problem. During the academic year 2001–2002 the project team looked at the future of Cambridge as a case study. The work, premised on results of the Cambridge Futures Project, examined different approaches, locations and institutional means to enable Cambridge to foster and accommodate growth. Students worked in multi-disciplinary teams, consisting of architects, planners and land economists. Each team looked at one of the expansion sites identified by the Cambridge Futures Project (Figure 14.1).

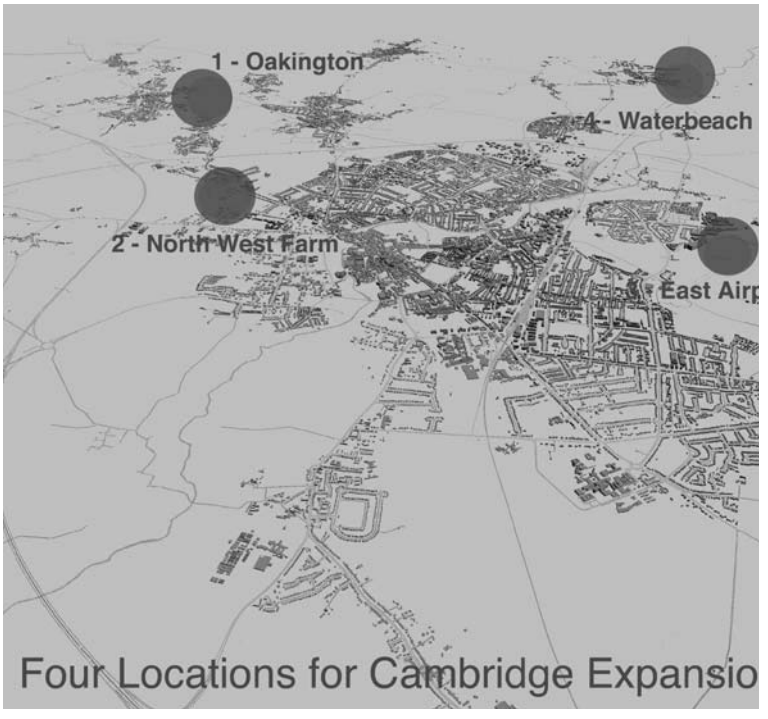

Figure 14.1
Cambridge expansion – the four case study sites (previously identified by the Cambridge Futures Project).

Taking the existing planning and economic framework as given, the team were asked to work in a multi-disciplinary way to produce a feasible sustainable development framework for the site, with particular reference to:

- **exploring new urban and built forms appropriate as hosts to innovation, productivity and competitiveness**
- **reconciling the requirements for new urban settings with conservation goals for existing settlements and rural areas**
- **understanding the relationship between environmental and sustainable development, and social development**
- **understanding and managing large scale, complex urban systems**

During the 10 weeks of the project, each team explored a variety of urban forms and implementation mechanisms that would create sustainable settlements and in particular foster synergy and creative collaboration between the university and its setting, while seeking to ensure that such new development helped address current social and economic shortcomings, and sustained the attractive nature of Cambridge and its region.

The case study project: Oakington Barracks

The following describes the working methodology and resulting sustainable development model produced by one of the