## Chapters 2 and 4

Case Example: - New Venture Creation in the Knowledge economy: Entrepreneurship Development at the University of Surrey.

In the drive to develop a knowledge-based economy, U.K. universities are being required not only to help regional sme's become more competitive, but to facilitate the growth of new, technology-based businesses. Over the years numerous initiatives have been introduced to promote this development and most recently the UK Government has introduced very targeted and specific programmes, such as the Science Enterprise Challenge, University Challenge and Higher Education Innovation Funds.

The University of Surrey has a long tradition for promoting innovation and new ventures. In 1986 it opened its highly successful £70 million Science Park (The Surrey Research Park) which houses its incubator (the Surrey Technology Centre). Since its inception the Park has contributed significantly to the economic development of the region and to technology transfer, as well as fostering innovation. Tenant companies employ over 2,500 staff and many feed technology into local companies with which they have partnering arrangements. More than this, approximately two-thirds of the firms have links with the University and a number of the University's own spin-out firms have located there.

Over the years, the University has developed a successful track record of commercialising its research and numerous spin-out companies have been established. Not only is the Research Park itself a successful venture in its own right, but numerous other ventures have been developed, including the internationally recognised Surrey Satellite Technology Ltd, the world's leading provider of small satellite applications, CliffMar Associates Ltd, Stockgrand Ltd., etc. In the academic year 2000-2001 alone, it created six businesses and signed 14 licence deals, providing £120,000 of revenue and the potential for future royalties. However, in order to strengthen its position and contribute even more strongly to the commercialisation of its research and the transfer of technology, it has created a TCS Office and appointed three "Innovation Network Managers", under the Higher Education Innovation Fund, to help transfer the University's technology. Additionally, it has developed links and partnerships with similar institutions in the region. Such partnerships have resulted in a number of important new initiatives. For example, a successful bid with the University of Sussex has resulted in the creation of a "Biotechnology Enterprise Platform" (Beacon Bio), intended to improve the identification and management of intellectual property in the biosciences in the two institutions. In addition, the University has been party to a number of successful consortia bids under the University Challenge and Higher Education Innovation Funds.

To complement its own £1million venture capital fund, which provides awards of up to £150,000 per project, the University has made a successful bid under the University Challenge initiative and established a Venture Capital Fund (Cascade) in partnership with

Brunel University, the Universities of Reading and Sussex and Royal Holloway College, University of London. This is a two-tier fund with the "stimulus fund" providing up to £30,000 for proof of concept, market studies, etc., and the "growth fund" providing investments of up to £250,000 for growing a promising venture. Further funding is being made available through the business angel and venture capital networks it is currently establishing both regionally and nationally.

Additionally, a pre-incubator has been established on the Research Park to facilitate the commercialisation of research from both within and outside the University. The Surrey pre-incubator is the first of four to be developed under a consortium bid to the Higher Education Innovation Fund, the others being at the Universities of Bath, Bristol and Southampton. They are intended for nascent entrepreneurs with a sound business idea that links into the knowledge-base of the four universities. Each pre-incubator offers managed workspace, including reception facilities, a telephone answering service, diary management plus meeting rooms, and the users are supported with business and technological mentoring, training and networking opportunities. These are provided locally and through the consortium, with a range of both local and regional activities, training resources and events.

At the Surrey pre-incubator, which opened in July 2002 on the Surrey Research Park, there are currently 14 nascent businesses, with ideas ranging from the use of modern technology to improve the efficiency of patient-centred cancer care, to the generation of electricity from air pollution and light emission from silicon. The businesses will be given the help and support needed to formulate a business plan and bring them to a stage when they are investment ready. At this time, an exit strategy will be formulated and they will move into commercial premises, ideally in the University's incubator (The Surrey Technology Centre) and from there to premises on the Research Park. In the process it is intended that the University will retain its links with the businesses as they grow and develop, thus fulfilling another of the Government's objectives of linking universities more closely with the sme community.

Extending the incubation process in this way may be somewhat controversial, especially as incubators have been criticised, recently, for providing an unreal, too protective environment for the embryonic business. However, research at Surrey suggests, for example, that although academics are very similar to entrepreneurs in terms their Need for Achievement, Need for Autonomy/Independence, Creative tendency and Drive and determination to succeed, they differ in their preparedness to take risk, being more risk averse than the typical entrepreneur. The pre-incubator is intended, therefore, to help reduce, but not eliminate, the risks involved in business start-up especially for academic entrepreneurs, though not exclusively. Clearly the intention is that by reducing the risk, academics in particular will be encouraged to commercialise their research.

At the same time the pre-incubator is intended to increase the survival chances of the nascent businesses. Outside the pre-incubator, very few start-ups survive. Hence it is intended that it should equip the nascent business with the requisite resources to survive the start-up process. As in life generally, however, timing is important. Too long in the

pre-incubator could impair development, whilst too early an exit could result in premature death. While the intention is that the pre-incubator will not provide long-stay accommodation for the nascent businesses, neither will it evict prematurely. This will require very careful judgement and the intention is that the progress of the businesses will be assessed at regular, three-monthly intervals by a practitioner panel, and advice and guidance will be provided with respect to future plans and progress. This will include guidance on exit strategies.

Only time will tell how successful the Surrey pre-incubator and its partner pre-incubators at Bath, Bristol and Southampton have been, but the early signs are encouraging. As one of the member entrepreneurs said, recently, "our association with the University of Surrey Hatchery has provided access to University and local business expertise that has proved to be highly advantageous".

## Case Example Exercise

Review the UK Government's contemporary support for new venture creation and development. What else could the Government and the University be doing to help create and grow new knowledge-based businesses? Compare what it is doing with what is happening in your own university or a university known to you. What do you think are the strengths and weaknesses of the University of Surrey's approach?