Concern over the human health and environmental side effects of chemical pesticide use has created demand for alternative pest control technologies, such as biological control. However, with very few exceptions, crop protection still relies heavily on pesticide inputs. This is particularly so in arable field crops where, in spite of some potentially useful existing biocontrol technologies (eg habitat manipulations to enhance performance of predators and parasitoids) and exciting new technologies (natural semiochemical odours which can attract natural enemies to plants and also repel pests), there has been negligible movement away from pesticides. Potential reasons for lack of adoption of biocontrol (or other technologies) in a commercial setting are varied. Farmers' differing attitudes to risk, differences in the structure of the costs of alternatives and perceptions of efficacy play an important part.

This project addresses these issues by evaluating current effectiveness (both economic and biological dimensions) and future potential of habitat manipulations and semiochemicals at the farm scale, and by quantifying the socio-economic factors acting across the food chain to determine their relative cost

effectiveness and ultimate adoption. The aim is to develop an improved research and development framework, with appropriate policy recommendations, for implementing alternative pest control technologies and breaking pesticide dependency