Interest in the local dimension of economic development has intensified in recent years with changes in the English policy landscape emphasising local policy action. In this paper we use an augmented version of the UK Innovation Surveys 4-7 to explore firm-level and local area influences on firms' innovation performance. We find strong evidence of the value of external knowledge acquisition both through interactive collaboration and non-interactive contacts such as demonstration effects, copying or reverse engineering. Levels of knowledge search activity remain well below the private optimum, however, due perhaps to informational market failures. In terms of the effects of the local innovation eco-system on firms’ innovation three results stand out. First, we find no significant relationship between either local labour quality or employment composition and innovative outputs. Second we find strong positive externalities of openness resulting from the intensity of local interactive knowledge search – a knowledge diffusion effect. Third, we find strong negative externalities resulting from the intensity of local non-interactive knowledge search - a competition effect. Our results provide support for local initiatives to support innovation partnering and counter illegal copying or counterfeiting.