INTRODUCTION

At the Innovation Research Unit (IRU) we combine interdisciplinary empirical research on issues identified as important for innovation performance with computational methods such as network analysis, agent-based modelling and social simulation, to implement and test innovation policy scenarios.

At IRU, agent-based modelling (ABM) is used – a powerful and innovative methodology for policy modelling, which gains more and more prominence in the scientific community – to identify and understand the effects of certain innovation policy strategies and their associated knowledge dynamics. We can build on a highly-validated and widely-used simulation model, which has been used to model e.g. organisational learning in and between firms to explore spillover effects (Gilbert, Ahrweiler and Pyka, 2007; Pyka, Ahrweiler and Gilbert, 2009), the effects of partner choice and capital distribution on industry size and performance (Ahrweiler, et al., 2010), and the structural characteristics of innovation networks (Pyka, Ahrweiler and Gilbert, 2007). This model is constantly improved for different applications relying on a development history, which started in 1998 with the EU project “Simulating self-organising Innovation Networks” (SEIN).