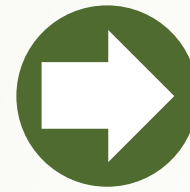


Collaborating for Sustainable Energy Innovation

The case of the UK's Private Finance Initiative school projects

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Following Complex Product Systems (CoPS) innovation management model, innovation for sustainable energy on PFI projects is understood as a multidisciplinary activity spanning multiple organisations with success largely depending on the collective, dynamic and collaborative relationships among project participants. The study focuses on collaboration at the following interfaces:

- The Design-construction-operation interface
- The Local Authority-Project team interface
- The School-Project team interface

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Question and Purpose

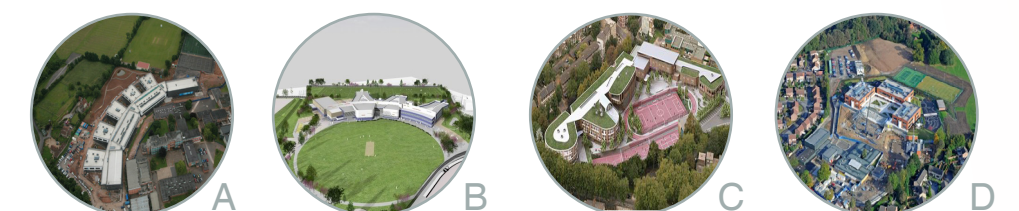
The study examined the capacity of a complex public-sector procurement policy, in the form of the Private Finance Initiative (PFI), to support inter-organisational collaboration for Sustainable Energy Innovation (SEI) in school buildings.

Method

The study focuses on PFI schools delivered within the context of the UK government's Building Schools for the Future (BSF) programme, an immensely ambitious programme designed to rebuild or refurbish all secondary schools in England over 15 years at a cost of £45 billion.



Four new-built BSF PFI school projects were selected following set criteria to ensure comparability and to maximise what could be learned from the study. Three case studies were selected on the grounds that they showed at least one significant SEI (Cases A, C & D), and one case study was selected on the grounds that it showed no evidence of SEI (Case B). Data was collected through semi-structured interviews with the Project team, Local Authority and School representatives from each case study. In total, 50 interviews were conducted.



02

CAN PFI ENCOURAGE COLLABORATION TOWARDS SEI?

04

Managerial and policy recommendations

The findings underline the need for policy makers and project managers to address the main problematic issues identified in order to create an environment conducive to SEI in PFI projects.



- The concept of Project team integration deserves further attention, particularly in aligning actors' objectives and priorities towards long-term sustainability.
- The competitive bidding process under PFI should be simplified in order to encourage collaborative engagement towards SEI.
- Local Authorities and Project team actors should develop mutual understanding of each other's needs and objectives. Therefore, cost/quality assessments should be adequately conducted by Local Authority actors prior to tender.
- The limited involvement of schools in developing SEI should be addressed. While schools' priority is understandably education, their role, as the users of the innovative sustainable building, is vital to the development of successful innovation.

03

Main findings

The research findings provide empirical evidence to the limited capacity of PFI procurement to support collaboration for SEI.



- Open communication among design, construction and operation disciplines is weakened by lack of integration of facility management into influencing design decisions. Collaboration is also weakened by misalignment of objectives among architects, contractors, and facility managers.
- Open Local Authority-Project team communication is weakened by the restrictive nature of the BSF engagement process. The process involved a multitude of issues and, therefore, it pushed environmental sustainability and energy issues further down the priority list. Collaboration is also interrupted by misalignment of sustainability objectives among Project team and Local Authority actors.
- Open School-Project team communication is restricted by the formal and difficult nature of the BSF engagement processes. Effective collaboration is also weakened by schools' limited responsibility over the energy performance of their building under the PFI contract, resulting in sustainability and energy efficiency issues being further down their priority list.

