# Exploring the Internalization of University–Industry Collaboration and Firm Innovation

# An analysis of influential roles, problems, and implementation paths

## Daniel Hemberg

#### AKADEMISK AVHANDLING

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Professor Magnus Holmen
School of Business, Innovation and Sustainability at Halmstad University, Halmstad



### ABSTRACT

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The phenomenon studied here is how cooperatively developed knowledge, resulting from knowledge-related interaction in a university-industry collaboration (UIC), is internally utilized by a firm. The purpose of this research is to explore how knowledge developed in a UIC is utilized by the collaborating firm in the development of innovations. The aim is to advance our understanding of how the collaborating firm internally develops innovations using knowledge derived from collaboration by means of empirical descriptions.

The research employs a single-case study design, focusing on the Combustion Engine Research Center, as the case, and the collaboration between Chalmers University of Technology and Volvo Car Corporation. Primary data were collected through semi-structured interviews and supplemented with archival data as the secondary data. Two rounds of interviews were performed to collect data.

The first round of the study investigates the influential roles within firms that facilitate the utilization of collaboration knowledge. The research identifies three distinct roles and examines their engagement in project meetings and the industrial monitoring of collaborative research. The second round of the study explores the process of recognizing and implementing collaboration knowledge within firms. It identifies the relationship between collaboration knowledge and a problem as a key factor in recognizing the value of the collaboration knowledge. The study further explores the dynamics of implementation, identifying three implementation paths and their associated effects.

The significance of these findings lies in their potential to inform strategies for leveraging collaboration knowledge to promote innovation within firms. The study adds to the literature by building a detailed understanding of the dynamics of the recognition and implementation of collaboration knowledge, thereby offering valuable insights for both academic and industrial stakeholders.

**Keywords:** knowledge, university-industry collaboration, absorptive capacity, higher education, academic engagement with industry, collaborative research, capabilities problem, boundary spanner, paths of implementation.

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Department of Economy and Society
University of Gothenburg
P.O. Box 625
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