

# Technology Commercialization in Advanced Materials Sector: A Case Study

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## ABSTRACT

This study is aimed at developing insights about commercialization process of advanced materials-based technologies and the role a Research and Technology Organization (RTO) can play in successful commercialization. In this paper, one of the well-known technology commercialization models is used as a basis and has been compared with road-map adopted by an Indian RTO for commercializing one of its advanced materials based technologies to enhance understanding of the process, utilizing case study research design. Detonation spray coating (DSC), forming part of differentiated oligopoly thermal spray industry, targeted at few niche customer groups was developed by International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI) – an Indian RTO – in collaboration with a Ukrainian institute. Multi-stage coverage strategy was adopted to capture potential market segments leading to minimization of market risk. Strategy involving market penetration and development for already available coatings coupled with product development and diversification for newer coatings was used. ARCI undertook the responsibility for incubation and demonstration, and transferred the technology to four entrepreneurs when products based on DSC technology were being launched for adoption by target customers. Efforts by technology recipient companies to sustain technology in marketplace either at their own or with ARCI's support have been ongoing. Appropriate tie-ups, choosing a challenging and high volume application for demonstration, efforts to create markets in several sectors initially by ARCI and then by technology recipient companies, and subsidized funds provided by government agencies played important role in successful commercialization

*Key Words: Technology Commercialization, Advanced Materials Technologies, Case Study Research, Detonation Spray Coating, Technology Marketing, New Product Launch*

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