

Opening Up New Fields of Application with TRIZ Reverse – Conceptual Framework, Software Application, and Implementation Challenges

Simon Dewulf¹, Swen Günther²[0000-0001-7525-2104], Peter R.N. Childs³[0000-0002-2465-8822],
and Darrell Mann⁴

¹ AULIVE, Glen Elgin, NSW 2370, Australia

² HTW Dresden, University of Applied Sciences, Friedrich-List-Platz 1,
01069 Dresden, Germany

³ Dyson School of Design Engineering, Imperial College London, South Kensington,
London SW7 2DB, UK

⁴ Systematic Innovation Network, Devon, UK
s@aulive.com

Abstract. Instead of a problem looking for a solution, this is where a company develops a certain technology, say a foam metal, and reviews the properties as promising and novel and then gets to the part where one says, who needs it. A solution looking for problems. Instead of necessity is the mother of invention, here invention is the mother of necessity. Especially material companies develop novel, conflict breaking materials after which they need to identify where in which markets it adds value to current solutions. This paper introduces the conceptual framework of TRIZ Reverse and its practical application. Based on three case studies, the procedure – from key word identification to patent database research to industry sector analysis – is outlined. Special attention is given to the cloud-based software Patent Inspiration, which supports the innovation logic of TRIZ. At the end, we identify critical factors for implementation and, based on this, we examine the success potential of the three case studies. The technological fit is a necessary prerequisite, but by far not the only one.

Keywords: TRIZ Reverse, Patent Analysis, Technology Transfer