

# Foreword

Over the past decade, the Australian rail industry has witnessed an overwhelming flow of new technologies, all seeking to improve the safety and efficiency of modern rail operations. Over the next decade, we will undoubtedly see a further acceleration of the adoption of new rail technologies. While the introduction of new technologies holds a great deal of promise for the rail industry it is important that decisions about investment in new technologies are based on a solid base of evidence about their limitations and benefits.

This book is a practical guide to evaluating the human factors issues of technologies in the rail industry, and represents a tool-kit of methods that provides resources for people at different levels in the process of making decisions about that technology. The book is designed to assist those making decisions about investing in rail technology, those tasked with developing and implementing a technology and the human factors consultant who may be contracted to assist in the evaluation. As such this work helps plug a gap in respect of published material and standard methodologies to address the human factors implications of new technology in the rail context.

This book is not only a comprehensive overview of how one might think through the issues associated with introducing a new technology, so that the likelihood of error and unintended consequences are reduced, but it also illustrates the complexity of issues around successfully introducing new technology.

The editors of this book have led the way in finding innovative solutions to rail human factors problems, particularly those surrounding the introduction of technology. This book presents their expertise in this area together with valuable contributions from their colleagues about particular issues and methods of evaluating technologies. This book is an excellent example of collaborative research delivering world class knowledge and information to the rail industry.

The Cooperative Research Centre (CRC) for Rail Innovation has been an active participant in research in this area and I'm delighted that we have been able to finance and sponsor this significant and innovative work. Australia is 'punching above its weight' in the development of new technologies in the rail industry and having access to this world leading tool-kit is a crucial part of managing the risk and successfully introducing new technologies that will make the rail industry safer and more efficient.

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