Acknowledgements

The seed for this book was planted during Professor Wim Vree’s inaugural address in 2003 at the Delft University of Technology, where he accepted a chair sponsored by the (former) Dutch Ministry of Transport, Public Works and Water Management. In his inaugural lecture (Appendix I, this volume), Vree identified inverse infrastructures, or bottom-up, self-organizing, user-driven infrastructures, in the field of Information and Communication Technology (ICT). He explored their emergence and use in road and water traffic management. His vision of the future caused a stir. It inspired a group of colleagues to examine and elaborate the concept with a set of unlikely yet complementary theoretical approaches from complex adaptive systems theory, standardization studies, open source community building, and systems-of-systems theory (Appendix II, this volume). In ICT, many developments were taking place that seemed to confirm the relevance of the inverse infrastructure phenomenon. A first attempt was made to specify the manner in which inverse infrastructures differ from newly emergent infrastructures of the past, and to generalize findings from ICT to other sectors such as the energy sector.

Soon the idea arose to explore more systematically whether the emergence of self-organizing and user-driven infrastructures reflected a more general cross-sectoral trend in the field of infrastructures. We were able to draw on the vast expertise on infrastructure development accumulated within our faculty of Technology, Policy and Management (TPM) largely under the auspices of the Next Generation Infrastructures Research Program. Researchers in the TPM faculty typically specialize in analyzing complex problems (large-scale, multi-actor, multi-level) and do so from different theoretical perspectives including history, design, innovation and public values.

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We started in September 2008 by identifying the disparate and isolated knowledge relevant to our investigation of the inverse infrastructure phenomenon. As part of the intellectual maturing process, we organized: a roundtable discussion with select experts at the Next Generation Infrastructures Conference *Building Networks for a Brighter Future* (Rotterdam, the Netherlands, November 2008) consisting of Wim Vree (Appendix I, this volume), Dirk-Willem van Gulik (BBC), Helen Stout (TUD) and Laurens de Vries (TUD), and Rudi Westerveld (Chapter 10, this volume); a one-day workshop with the authors and Advisory Board to develop common ground (Delft, the Netherlands, January 2009); and sought feedback on our ideas at presentations (Delft, March 2009; Chennai, India, Next Generation Infrastructures Conference *Developing 21st Century Infrastructure Networks*, December 2009; Chennai, India, Tata Consultancy Services, December 2009; University of Twente, the Netherlands, January 2010). Our thanks to the participants in these discussions.

An intense process of debate, reviewing and re-writing followed. We very much thank the anonymous external reviewers for their comments and insights. We also thank the authors for their flexibility and willingness to increase the coherence of the book, an effort they made despite heavy workloads.

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