

# Preface

The Ph.D. thesis currently in front of you marks the end of a valuable and important period of my life, both academically and personally speaking. Academically, as this thesis is the result of almost five years of doctoral research which I conducted at the University of Groningen. Personally, not just in terms of self-development, but mainly because I met and married the love of my life. Therefore, I am looking back on a great period of my life, for which I am more than grateful to all the people who took part in that.

In this thesis, I describe the research conducted to investigate the applicability of intelligent products for monitoring and control purposes. Many organisations face difficulties with operational monitoring and control, and it is argued that intelligent products are promising in overcoming these difficulties. Therefore, the first part of this thesis analyses the difficulties faced, and presents an overview of intelligent products. Afterwards, part II and III analyse and evaluate the application of intelligent products in the contexts of production and transportation, respectively. Finally, part IV provides a discussion on the research findings and contributions.

The process of writing and finalising a Ph.D. thesis is something which cannot be accomplished alone. Therefore, I would like to express my appreciation to everybody who contributed to this thesis and everybody who supported me in writing it. First of all, I would like to thank my co-promoter Nick Szirbik, as his contribution to this thesis has been crucial. His encouragement for me to pursue a Ph.D., the various papers we have written together, the numerous discussions we had, his countless digressions, it all proved to be extremely valuable to the completion of this thesis. Next to

## PREFACE

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