Preface

The present consumption models with short product life cycles result in an increasing number of used products that need to be collected and reused or disposed. Both legal regulations and consumers’ concerns regarding these issues have led companies to include reverse material flows in their operations.

Remanufacturing gains recently more popularity among researchers and companies. It is the favourable scenario for the recovery of obsolete of end-of-use products. It allows to capture substantial part of the resources which were used in the primary production at lower cost, providing economic, environmental and social benefits. Remanufacturing is more complex than in traditional manufacturing, primarily because of the inherent uncertainty in the timing, quality and quantity of returns. Many companies face difficulties in organizing resource efficient remanufacturing operations. Small- and medium-size enterprises lack sufficient tools and methods for the monitoring and assessment of their operation with regard to the three dimensions of sustainability.

Implementation of the sustainability concept at a company level might create a chance for long-term economic success and for finding market niche. Remanufacturing companies help to close the material loops in the economy and contribute to the resource conservation.

This book focuses on the sustainability assessment in the remanufacturing operations. The authors in individual chapters present the methods, models and case studies for sustainability improvement in remanufacturing facilities.

This book refers to the studies which were conducted in the framework of the bilateral Polish-German research cooperation for sustainable development project SIRO “Sustainability in Remanufacturing Operations” (grant from National Centre for Research and Development (NCiBR) and German Federal Ministry of Education and Research (BMBF), no WPN/2/2012 and 01RS1204A).

We would like to thank all authors who responded to the call for chapters and submitted manuscripts to this volume. Although not all of the received chapters appear in this book, the efforts spent and the work done for this book are very much appreciated.
The good scientific quality of the chapters was assured by a rigorous blind review process. We would like to thank all reviewers whose names are not listed in the volume due to the confidentiality of the process. Their voluntary service and comments helped the authors to improve the quality of the manuscripts.

Poznan, Poland
Paulina Golinska-Dawson
Bayreuth, Germany
Frank Kübler
Sustainability in Remanufacturing Operations
Golinska, P.; Kuebler, F. (Eds.)
2018, VIII, 179 p. 56 illus., 21 illus. in color., Hardcover
ISBN: 978-3-319-60353-7