Record Nr. UNINA9910349290903321 Empirical Studies on the Development of Executable Business Processes **Titolo** [[electronic resource] /] / edited by Daniel Lübke, Cesare Pautasso Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2019 **ISBN** 3-030-17666-5 Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (xxvi, 223 pages): illustrations Disciplina 658.501 Application software Soggetti Management information systems Industrial management Software engineering Information Systems Applications (incl. Internet) **Business Process Management** Computer Appl. in Administrative Data Processing **Business Information Systems** Software Engineering Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. 1 Empirical Research in Executable Process Models -- 2 A Template for Nota di contenuto Categorizing Business Processes in Empirical Research -- 3 Effectively and Efficiently Implementing Complex Business Processes - A Case Study -- 4 Analysis of Data-Flow Complexity and Architectural Implications -- 5 Requirements comprehension using BPMN: An Empirical Study -- 6 Developing process execution support for high tech manufacturing processes -- 7 Developing a Platform for Supporting Clinical Pathways -- 8 IT Centric Process Automation: Study about the Performance of BPMN 2.0 Engines -- 9 Effectiveness of Combinatorial Test Design with Executable Business Processes. Sommario/riassunto This book collects essential research on the practical application of executable business process modeling in real-world projects, i.e., model-driven solutions for the support and automation of digital business processes that are created using languages such as BPEL or

BPMN. It mainly focuses on empirical research, but also includes an upto-date cross-section of case studies in order to assess examples of BPM's practical impact in the industry. On the one hand, executable models are formally and precisely defined so that computers can interpret and execute them; on the other, they are visualized so that humans can describe, document and optimize business processes at a higher level of abstraction than with traditional textual programming languages. While these important research areas have long been separated from one another, this book is an attempt at crossfertilization, driven by the insight that business processes are the software behind today's digital organizations, and that achieving a precise representation of such processes is key to their reliable execution. Consequently, the book presents various case studies and experiments that investigate questions of interest to both academia (e. g., identifying challenges for which no solution exists; sharing new insights into how existing approaches are actually used) and industry (e.g., guidelines on using certain technologies and on modeling comprehensible and executable processes). Both researchers and practitioners will benefit from the presentation of how concepts are transformed into working solutions. The studies are presented in a structured manner and with sufficient rigor to be considered empirical research, further enhancing the book's value for the research community, while practitioners will find concrete guidance on making the right decisions for their projects.