Record Nr. UNINA9910437593503321 Agent-based modelling of socio-technical systems / / Koen H. Dam, **Titolo** Igor Nikolic, Zofia Lukszo, editors Pubbl/distr/stampa Dordrecht,: Springer, 2013 **ISBN** 1-283-69809-9 94-007-4933-3 Edizione [1st ed. 2013.] Descrizione fisica 1 online resource (284 p.) Agent-based social systems, , 1861-0803;; v. 9 Collana Altri autori (Persone) DamKoen H **Nikoliclgor** LukszoZofia Disciplina 001.4/22 Soggetti Social systems - Computer simulation Technology - Social aspects Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references and index. Nota di bibliografia Nota di contenuto pt. I. Theory and practice -- pt. II. Case studies. Sommario/riassunto Decision makers in large scale interconnected network systems require simulation models for decision support. The behaviour of these systems is determined by many actors, situated in a dynamic, multiactor, multi-objective and multi-level environment. How can such systems be modelled and how can the socio-technical complexity be captured? Agent-based modelling is a proven approach to handle this challenge. This book provides a practical introduction to agent-based modelling of socio-technical systems, based on a methodology that has been developed at Delft University of Technology and which has been deployed in a large number of case studies. The book consists of two parts: the first presents the background, theory and methodology as well as practical guidelines and procedures for building models. In

the second part this theory is applied to a number of case studies,

preparing the reader for creating own models.

where for each model the development steps are presented extensively,