1. Record Nr. UNINA9910484564503321 Autore Chechile Ignacio Titolo NewSpace systems engineering / / Ignacio Chechile Pubbl/distr/stampa Cham, Switzerland: ,: Springer, , [2021] ©2021 **ISBN** 3-030-66898-3 Edizione [1st ed. 2021.] 1 online resource (XVIII, 279 p. 125 illus., 105 illus. in color.) Descrizione fisica Disciplina 629.1 Soggetti **Astronautics** Astronomy Aerospace engineering Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Introduction - From Whiteboard to Space -- Life Cycles of the Artificial Nota di contenuto -- Systems and Design Thinking -- The Hierarchy Problem -- Modular Spacecraft Design -- The Importance of Semantics -- Quantitative Systems Engineering -- The Fallacy of Model Based Systems Engineering -- Keep it Simple, Stupid -- The Integrated Organization -- Failure Tends to Happen -- Every Second Matters in New Space --Design and Ownership -- On Bullshit. Sommario/riassunto This book provides a guide to engineering successful and reliable products for the New Space industry. By discussing both the challenges involved in designing technical artefacts, and the challenges of growing an organisation, the book presents a unique approach to the topic. New Space Systems Engineering explores numerous difficulties encountered when designing a space system from scratch on limited budgets, nonexisting processes, and great deal of organizational fluidity and emergence. It combines technical topics related to design, such as system requirements, modular architectures, and system integration, with topics related to organizational design, complexity, systems thinking, design thinking and a model based systems engineering. Its

integrated approach mean this book will be of interest to researchers, engineers, investors, and early-stage space companies alike. It will help NewSpace founders and professionals develop their technologies and

business practices, leading to more robust companies and engineering development.