Record Nr. UNINA9910624383703321 Autore Kuppers E. W. Udo <1949-> Titolo Ingenious Principles of Nature: Do We Reckon With Nature Or Nature Reckons With Us / / by E. W. Udo Küppers Wiesbaden:,: Springer Fachmedien Wiesbaden:,: Imprint: Springer,, Pubbl/distr/stampa 2022 **ISBN** 9783658380991 9783658380984 Edizione [1st ed. 2022.] Descrizione fisica 1 online resource (523 pages) Disciplina 660.6 Engineering Soggetti Science - Social aspects **Ecology** Environment **Biophysics** Engineering design Technology and Engineering Science and Technology Studies **Environmental Sciences Engineering Design** Lingua di pubblicazione Inglese

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Note generali Includes index.

Nota di contenuto The inexhaustible wealth of evolutionary optimal solutions -- Principles

> of nature or survival in an open "cooking pot" -- Multidisciplinary developmental works -- Central operating principles of evolution --Eight basic biocybernetic rules according to Frederic Vester -- Ways out of the trap of human short-sighted design routines -- Application of basic strategic principles of nature in the human design space --Application of central operational principles of nature in the human design space -- Eight basic operational biocybernetic rules.

Sommario/riassunto How can the book's title be paraphrased in one succinct sentence? By

> Arthur Schopenhauer's handed-down statement: "Any stupid boy can crush a beetle, but not all the professors in the world can make one."

Animals and plants of interconnected nature have learned over billions of years, through perfect adaptive adjustment to their environment, to achieve peak performance for their survival, whose effective and sustainable principles are unparalleled in our technology-infused environment. This immeasurably rich natural treasure trove of materials, tools, techniques, processes and organizations can help to steer the misguided development strategies of us humans, which in addition to extraordinary technical advances also produce extraordinary catastrophic consequential problems, into forwardlooking paths capable of living and surviving. In view of the accumulation of damaged nature by us humans, both of whose existence is inextricably linked, new sustainable development strategies are inevitable. These can only be done with and not against nature. It will be a necessary struggle for survival against the "masters of humanity", against their pernicious, political and economic treatment of nature. which affects us all. From the contents - The inexhaustible wealth of evolutionary adaptive solutions - 22 evolutionary principles from fauna and flora - Operational principles of nature - Beyond the exhaustive wealth of technospheric maximum solutions - Biotechnospheric transformations - 30 workable resolutions - Konrad Lorenz "Eight Deadly Sins of Civilized Mankind" - Noam Chomsky's battle against the "masters of humanity" About the author As an engineering scientist and bionic scientist, Dr.-Ing. E. W. Udo Küppers devotes his interest preferably to the complex border area between nature and technology. Associated with this are systemic thinking and acting, highly mindful organizational processes, accompanied by practical impact network methods. Besides activities in his working group »Küppers-Systemdenken« (since 2000) he taught at different universities with the core module Interdisciplinary Competence until 2021. This book is a translation of an original German edition. The translation was done with the help of artificial intelligence (machine translation by the service DeepL.com). A subsequent human revision was done primarily in terms of content, so that the book will read stylistically differently from a conventional translation.