1. Record Nr. UNINA9910427053703321 Autore Antonini E (Ernesto) Titolo Emergency driven innovation: low tech buildings and circular design / / Ernesto Antonini, Andrea Boeri, Francesca Giglio Cham, Switzerland: ,: Springer, , [2020] Pubbl/distr/stampa ©2020 **ISBN** 3-030-55969-6 Edizione [1st ed. 2020.] Descrizione fisica 1 online resource (XIX, 179 p. 83 illus.) Innovation, Technology, and Knowledge Management, , 2197-5698 Collana Disciplina 363.3483 Soggetti **Emergency housing** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia

Nota di contenuto

Chapter 1. Building in Emergency: Low-Tech Driven Innovations -- Chapter 2. Technologies for Building After Disaster: A Critical Review -- Chapter 3. Beyond Emergency, Toward Circular Design: Building Low Tech -- Chapter 4. Assessing the Circular Potential. Design, Build, Living Reversible -- Chapter 5. Building Strategies for Circular Economy. New Visions and Knowledge Production for European Research.

Sommario/riassunto

This book explores the relationship between the circular economy and the building technologies within the quintuple helix innovation model. The main question the book answers is whether and how the conversion of sustainable construction processes can be a powerful engine of innovation for the industry. The post-disaster settlements and temporary shelters are assumed as examples of what can be defined as circular buildings in regards to the technical arrangements and features, material and process reversibility, as the social and participative dimensions. Several cases of these interventions are documented and classified by three thematic axes: design, building and living. This highlighted new trajectories for innovation in building technology, consistent with the social, economic and productive dynamics that no longer allows for growing performance by increasing the resource demand. A theoretic framework is traced supporting this vision, which shows how the low technologies can respond to the transition of the economic model from linear to circular. Within this

trajectory, the low-tech design for remanufacturing represents a reference framework and a promising tool applicable to the building processes. The enabling technologies and new paradigms for the transition to circular economy emerging from the European research scenario are also mapped, outlining the possible future developments in line with open technical and societal challenges.