Record Nr. UNINA9910640388703321 Autore Mercader-Moyano Pilar Titolo Sustainable renovation of buildings: building information modelling // Pilar Mercader-Moyano, Manuel Ramos Martin Cham, Switzerland: ,: Springer, , [2023] Pubbl/distr/stampa ©2023 **ISBN** 3-031-15143-7 Edizione [1st ed. 2022.] Descrizione fisica 1 online resource (115 pages) Collana SpringerBriefs in Geography, , 2211-4173 Disciplina 720.285 Soggetti **Building information modeling** Buildings - Repair and reconstruction Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Chapter 1. Sustainable renovation of buildings and methodologies to Nota di contenuto quantify environmental and economic impact -- Chapter 2. Spanish regulations and European standardization: Driving transformation --Chapter 3. Methods -- Chapter 4. Method application -- Appendix. The book provides a complete vision about Spanish sustainable Sommario/riassunto renovation of buildings situation at this moment, analysing legal and technological context and opportunities that economic stimulus —by means of direct aids— and the use of BIM methodologies offers a standardization of high scale interventions. Nowadays, BIM models let us integrate multiple quantitative parameters that can agile the information to interchange between stakeholders. Using this potential to standardize protocols of interventions and share knowledge is necessary to face a high scale intervention that our cities need. Climatic Emergency and socioeconomic crisis caused by recent events —COVID-19 and hydrocarbons crisis— are the two principal struggles we face as

society. European Politics, embodied by National Energy and Climate Plans (NECPs) developed by each region give the way to the green

transition of different productive sectors. Our building stock is responsible for approximately 36% of the CO2 emissions in the European Union. For this reason, these policies focus a large part of their efforts on economically incentivizing a new development model

for the building sector that is committed to the large-scale renovation of the existing real estate stock and that, through the reduction of energy demand and of emissions, manage to reduce the environmental impact of these. Next Generation EU is the new recovery instrument that aims to mobilize investments towards strategic sectors for the reorientation of the production model that, among other measures, contributes to decarbonization through the promotion of energy efficiency and the deployment of renewable energies.