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Nota di contenuto	Cover -- Half Title -- Title Page -- Copyright Page -- Table of Contents -- Preface -- Acknowledgements -- Committees -- Knowledge & passion to expand underground for sustainability and resilience -- A look at embodied carbon in segmental tunnel lining -- Urban underground space use in a climate neutral city -- ATG Ceneri Base Tunnel: Driving method and production of concrete aggregates -- BIM-enabled carbon accounting and integrated design of underground infrastructures -- What might be our vision of the ecological transition in tunnels and underground spaces for the years to come? Low carbon lining for tunnelling precast segment -- How Dramix® fibre reinforced concrete could facilitate this achievement -- ADVANTEX: Research of innovative tools to support the logistics of the use of excavation materials produced by the Lyon-Turin railway line for the best sustainability and circular economy of the process -- Final design considerations for the major rehabilitation of the Montreal Lafontaine Tunnel -- Carbon footprint emissions of different tunneling construction methods Preliminary design and socio-economic benefits of a road tunnel construction in the Tzoumerka mountainous area -- Managing tunnel infrastructure: A new guideline -- Underground solution for urban resilience: Stormwater management infrastructure -- Advancement of conventional cost benefit for selection of truly sustainable infrastructure alternatives -- Practical countermeasures for

road tunnels against collapse of lining caused by earthquake -- Sustainable and resilient city: The case study of a hypogeum stadium in a desert area Autostrade per l'Italia (ASPI) TRS Tunnel Renewal Strategy: The cases of Castello 1 left, San Fermo right and Colle Marino left tunnels -- Resins filling injections of an extensive system of voids behind the final lining of Monte Baldo highway tunnel -- Shafts and spiral tunnels for large heat storages -- an economic study on ideal geometries -- Waterproof sprayed concrete with improved sustainability performance -- Environmental profile of bentonite drilling fluids for civil engineering applications Experimental study on cyclic shear behavior of biopolymer-treated soil as a tunnel backfill material -- Search for potential compressed air energy storage sites in Switzerland -- Mixed use potential of existing road tunnels for conveying water for hydropower generation: A case study of motorway tunnels in Swat, Pakistan -- The new Line 16 Sao Paulo Metro and best use of zero-carbon technology -- On the mechanical behavior of underground pipeline with separated joints rehabilitated by cured in place pipe.

Sommario/riassunto

This book on tunnelling engineering and underground space construction is a must-have reference for tunnelling professionals and engineers, architects and to academics interested in underground construction and geotechnical engineering.
