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Nota di contenuto	1 Introduction: 1.1 Self-healing phenomena -- 1.2 Why self-healing in cement-based materials -- 1.3 Definitions in an emerging field -- 1.4 Outline of the report -- 1.5 Link to other RILEM TC's -- 1.6 References -- 2 Experimental techniques used to verify healing: 2.1 Introduction -- 2.2 Techniques used to examine crack healing -- 2.3 Techniques used to verify recovery against environmental actions -- 2.4 Techniques used to verify recovery against mechanical actions -- 2.5 References -- 3 Recovery against environmental action: 3.1 Autogenic self-healing -- 3.2 Autonomic self-healing -- 3.3 References -- 4 Recovery against mechanical actions: 4.1 Autogenic self-healing -- 4.2 Autonomic self-healing -- 4.3 References -- 5 Modelling of self-healing cementitious materials: 5.1 Introduction -- 5.2 Lattice modelling for concrete with tubular encapsulation -- 5.3 Simulation of autogenic self-healing for concrete at early age -- 5.4 Simulation of self-healing capacity of hybrid fibre material -- 5.5 Analytical models for cracks hitting encapsulated materials -- 5.6 Self-healing by on-going hydration -- 5.7 References -- 6 Other materials, applications and future developments: 6.1 Introduction -- 6.2 Self-healing in other materials -- 6.3 Applications -- 6.4 Future developments and outlook -- 6.5 References.
Sommario/riassunto	Self-healing materials are man-made materials which have the built-in

capability to repair damage. Failure in materials is often caused by the occurrence of small microcracks throughout the material. In self-healing materials phenomena are triggered to counteract these microcracks. These processes are ideally triggered by the occurrence of damage itself. Thus far, the self-healing capacity of cement-based materials has been considered as something "extra". This could be called passive self-healing, since it was not a designed feature of the material, but an inherent property of it. Centuries-old buildings have been said to have survived these centuries because of the inherent self-healing capacity of the binders used for cementing building blocks together. In this State-of-the-Art Report a closer look is taken at self-healing phenomena in cement-based materials. It is shown what options are available to design for this effect rather than have it occur as a "coincidental extra".