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The charm of architecture lies also in its intrinsic quality of providing a concrete figurative and fruitive change of the spaces we live. It is difficult to discern when architecture reveals existing tendencies or when it represents a revolutionary element for the city - understood as a strategic improvement. The contemporary city appears to be fragmented into systems, fabrics and nodes, within which it is possible to individuate “partial cities”, which can interact or, in other cases, conflict with each other. The invariants of the transformation process can be found within the history of the city, considered as an entity in continuity or in opposition to the thought expressed by the previous epoch.

For the first time, the Journal undertakes such important partnership, as the one established with the *European Energy Research Alliance Joint Programme on Smart Cities*. A significant step in thinking the future and its evolutionary lines, represented by the launch of a dialogic and research debate with a high scientific and sociological value for the cities of today and tomorrow. Nowadays, the “Smart City” represents a concrete concept of development, able to provide answers to the needs expressed by the city users; a stage of growing interrelation, at all levels, between people, services, infrastructures and built environment. The city identifies a complex system, composed by an articulated network of connections: the constant demographic growth and urbanization dynamics feed a series of social, technical and organizational problems that deeply threaten the economic and environmental sustainability of territories.

In this logic, the concept of Smart City is increasingly becoming subject of study within the architectural debate; a new model of urban development, capable of realizing a credible and intelligent response to foster a sustainable socio-economic growth.

A reality can be defined “smart” when the investment of tangible and intangible resources in communication and information infrastructures, envisages a strategic economic development; an investment, oriented to the social capital and towards a high quality of life, through an active participation of users, productive realities, governance and institutional bodies.

There is no single meaning of the term “Smart City”, nor codified parameters that can represent a univocal model and reference. Also, with reference to its etymology, the term “smart” is widely used in current language referring to indicators of environmental protection, public safety, public services and infrastructures. The coexistence of ICT with the “city of stone” is producing urban assets, which are very different from those given to us from history. Cities become smart in terms of systematization of everyday practices, in order to support individuals, buildings, systems of flows; at the same time they aim to enable the monitoring, understanding and planning of the city, improving efficiency, equity and quality of life in real time. A shift of paradigm, which is influencing the design and planning forms on several spatial and

temporal levels. A perspective, which foresees a more intelligent built environment in the medium and long term, compared to continuous but unproductive short-term reflection.

Realities require slow and long sedimentation times: the positive transformation of forms and habits follow these rhythms, influencing each other. What aggregates all the categories are the strategies aimed at defining a city, which considers that within a decade more than sixty percent of the population will live in a metropolitan environment. The concept of Smart City evolved over time also through recent technological developments, which combine networks and systems of immaterial connection. Modern ICT technologies allow the creation and development of integrated, shared and interoperable knowledge bases; a centralized optimization of information and a platform to support knowledge sharing and capitalization.

This monographic issue of the journal intends to address these levels of complexity, trying to tackle, in a scientific way, themes that concern a global sphere. A window on the topic, both in terms of geography and distribution, at different scales: from policies and strategies, to built environment transformations within the broader concept of Smart Cities.

Most of the topics are attributable to the concepts of flexibility, adaptability, versatility and sustainability, as well as innovative housing models: new forms of networking and different supply chains, tools and methodologies to support new designs and processes.

The Special Issue, for its nature, aims at representing an international scientific community and foster new platforms of knowledge sharing and dissemination. This intention has been received, as demonstrated by the considerable number of contribution coming mainly from Europe, but also from United States and China.

An international objective, on common aims and investigation fields, which confirmed the success of this first fruitful cooperation between SITdA and EERA, proposing a virtual roundtable about the Smart Cities to come and their founding principles.



01 | Coverage of contributions from the
European Scientific Community