

**Verification Process
of the Investment Option of Common Goods and the Social Suitability
by a New City Management (Medi-Square) Model
Based on Next-Generation Technology**

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Abstract

The urban infrastructural systems can be classified into two parts: tangible and intangible. While the tangible system refers to hard structure of networks consisting of railroad, road, etc. the intangible system in this paper is defined as a control/management system, by which the networks are steadily operated to meet a variety of highly specified demands such as environmental standard and better services for human care. Thus, the intangible system involves hybridization and sophisticated operation of high technologies.

The Medi-Square conception (abbreviated hereafter as MEDI) proposed herein is one of the urban management models, involving a mechanism by which a "social welfare" level can be elevated by understanding of the service demands. The MEDI is a public structure that converts various urban needs into a highly public property which contribute to an investment process of urban infrastructure. The investigation of investment size is indispensable to project the response effects of provision of public good on willingness to pay (WTP) of users. In this respect, an informational treatment to identify the absence or presence of possible *fair share* effects is necessary.

To design new city model according to this reasoning, the target city zone is selected to carry out simulation of social agreement using a joint experimental work with users. A city management company (special-purpose Company; MEDI/SPC) is introduced to grasp information flows and acts as *aggregator* collateralizing public responsibility.

The measurement infrastructure has also a great role to grasp the real condition of energy consumption and the outcome of greenhouse gas discharge curtailment, water reuse, by using:

Synergistic effect by complex effects of multi-utility

Setup of the environmental management unit combining buildings and of housing

Utilization of city infrastructure for evaluation of environmental conformity.

The cost benefit was applied to foresee the scale of effects although it cannot grasp qualitative aspects of effects beyond project level. The agreement formation by systematization (program) is a feature of a MEDI model. The merit of transformation from the fragmented agreement formation process to one integrated opinion as a system should be visible to all parties concerned. The length of the time for agreeing and the formation of the group structure for city utility should be analyzed and applied to a city system design in the future.

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