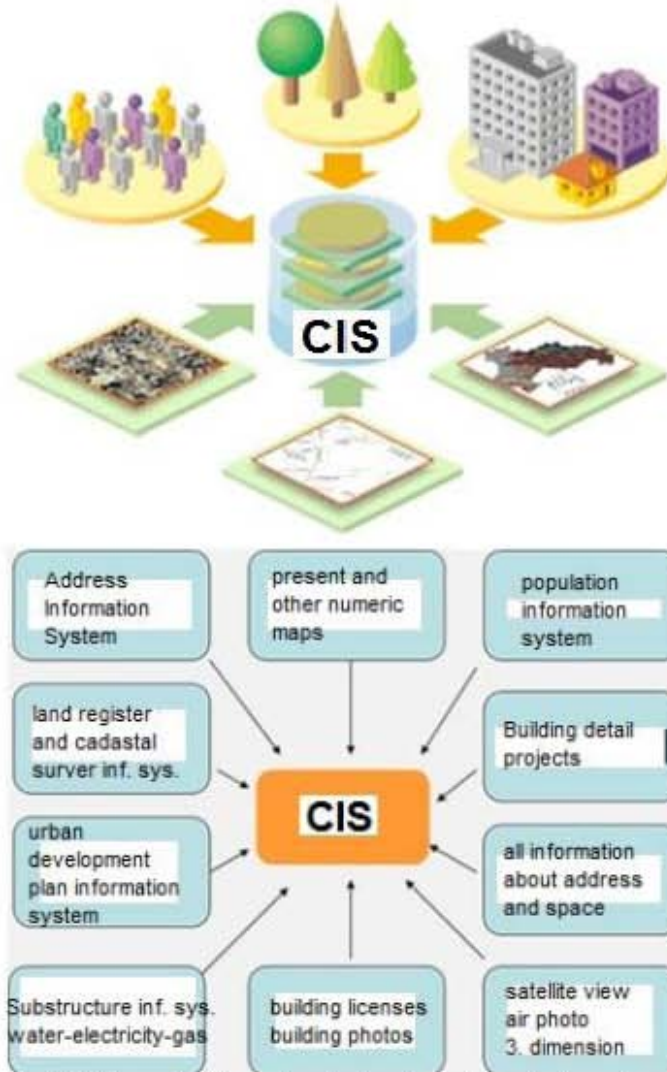# TECHNOLOGY USAGE OF LOCAL GOVERNMENTS IN URBAN ENVIRONMENT FORMATION

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Developments in the technology lead to a transformation in social dimension. This transformation formed "information society". Technological developments – especially in IT and communication – brought brand new expectations and understandings in municipality services, city planning issues and architectural activities. Municipalities – as public institutions accomplishing the expectations of information society – are effective actors in the formation of urban environment. The spatial identity of the city is somehow determined by the local governments by the means of both the creation of urban plans and architectural arrangements in the formation of urban built environment. Municipalities provide the most qualified, pioneer ideas and projects which will be most useful for the public. The effect and the contribution of the local government in the urban environment formation can be handled in two basic scales as urban development plans and architectural projects.

The preparation of the urban development plans is one of the most effective factors determining the quality of the urban built environment and the living comfort of the citizens. The developments in technology, IT and communication affected the services of municipality in urban environment formation. Both municipality services and urban planning have reached to an effective, contemporary and productive structure by the means of Konya City Information System Project. City Information System (CIS) is an urban based application of geographical information systems formed with the aim of examining the planning, substructure, engineering, basic services and governmental information in a rapid and healthy way which is needed to make the maximum decisions in fulfilling the urban facilities.

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Figure 1. City Information System is effective in providing the formation of urban environment with the technology used by the local governments.

Geographical Information System Coordination Committee is formed with all institutions in Konya in 2004. As the present maps of Konya did not exist a serious and planned study is needed for constituting the system at the beginning. The formation of Information System is a structure not only limited with maps. Konya Master Plan is re-evaluated within an analyzing, evaluating and interrelating structure. The information belong to Konya like urban development plan, cadastral survey, present map, sub-structural map, water, drainage, natural gas, electricity,

telephone, satellite view, land register information, tax information, socio-economical and demographical information, environmental pollution and construction license information are gathered and a database is provided by making use of technology. Local government provides an important contribution of technology to human and urban life by opening the "Konya City Guide" to public through internet. Urban development is provided as the City Information System, Ownership Information System, Address Information System, Social Texture Map and Information System, Disaster and Emergency Response Information System provide the function and actuality. Konya City Information System forms the most impressive example of using the technology in urban services with:

- Updating data directed at system analyses
- Obtaining images with high resolution
- City Guide study in web
- Digitization of Cadastral Survey Information
- Associating land register information and cadastral survey data
- Integrating cadastral survey and land register information to city information system
- Uniting urban development plans with topological data structure and integrating to city information system.
- Constituting topological data structures of present map information produced by İller Bank and integrating to city information system
- Field survey study and integrating survey data to city information system
- Making socio-economical analyses and preparing interfaces to have outputs of cartographic map.
- Having the potential of providing the software updating services with technical support to the system.

Discussions in wider expansion can be made upon the integration of urban development plans with technology in urban environment formation. However, as the agenda is about architecture and technology it will be more meaningful to concentrate on the architectural contributions of local governments to urban formation from the point of technology usage.

Any citizen even the ones have enough financial power cannot built public service buildings offered by local governments. In this sense, local governments become pioneer for the architectural identity and quality in urban environments. Local government, having the potential of producing architectural projects by using advanced technology and contemporary building materials has economical, legal and administrative efficiency to pass over the sectoral problems. It is in local governments' power to use the newest technologies, most contemporary building techniques in construction area for solving the social and spatial problems. Beside and beyond forming a synergy in quality of urban space with residence and office projects, local governments offer projects hard to realize with citizen power or individual efficiency like sport center, community home, congress center, hospital, culture home to the public. Local governments incorporate new visions to architectural environment by uniting aesthetical concerns in spatial solutions with

advanced technology while making architectural productions. In this sense living comfort of community increases and also contribution to architecture is provided by constructing new landmarks to urban identity with cultural and aesthetic values.

Selçuklu Congress Center is only one of the examples for the urban identity formed by the local government upon architecture in urban environment formation with its advanced technology in details, contemporary building materials and strong structural system. Selçuklu Congress Center should handled as a project which is an example of affecting the identity in urban environment by local governments providing good architectural projects and transferring the new technologies to pragmatic architects. Architect Murat Tabanlıoğlu designed a building here, which is a center of social integration and culture sharing, with the approach of handling independent blocks with different functions together under the same roof on 24464 m^2 site area with its 29700 m^2 construction area.

The patterns on the facade is used for solar control and provided an alive concept with its light-shadow games. This geometric form – blended with Anatolia texture by Seljuks, carrying the signs of traditional nomad culture – is stylized from the architectural heritage. The skylights on the roof provide maximum use of day light especially in foyers located between the main spaces. This space conceptually aiming the citizen to pass through itself besides spending time with various social and cultural reasons also forms a passage from the main street to the back entrance arranged as an open parking lot. The accessibility easiness is increased by this arrangement with alternative pedestrian and vehicle entrances from both facades. The square in front of the building is suggested to be "on a descriptive area of the city". It's sheltered and at the same time "open" attitude which encourage entering the building is supported by the electronic screen located on the facade towards the square. These details requiring technical perfection are the ones offered by municipalities upon architecture to urban environments. Visual communication of the activities and programs for the public is thought to be a fact increasing the attention. According to the architectural organization of the building, all spaces are open to common usage, also terraces and semi-open foyers create open air areas. The square surrounding the building is designed in a way to create possibility for urban meetings, open air exhibitions and activities. Murat Tabanlıoğlu mentioned that open exhibitions can be arranged in congress center in summer months. While he says "the terraces will be arranged with seating areas in spring-autumn months and this place will start to be a part of the city" actually he uses completely possibilities that technology offers to architecture.

Figure2. Selçuklu Congress Center Project is an example for the service offered by the local governments to the urban environment formation with usage of technology and architectural values.

Information society looks at the service offers with the focus of efficiency, speed, decrease in bureaucracy, transparency and sharing the administrative control. Usage of technology in municipality services is inevitably effective in both architectural projects and urban environment formation. City information system determines the urban environment formation in urban scale while contemporary building technologies provides it in architectural scale. The important fact is constructing the cities of future without compensating from sustainability, human rights, ethics and aesthetics and leaving more qualified environments to next generations.