

# Assessment of social and spatial effects of urban design in Athens: insights for a methodological framework

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# outline of the presentation

- the context: basic considerations of urban design in Greece
- object and objectives of the research
- methodological approaches and tools concerning the assessment of urban design projects on urban sustainability
- evaluation and discussion



## the context: basic considerations of urban design in Greece

- the objectives and the operational framework of urban design remain ambiguous in the Greek planning system / urban design process and projects are usually depleted within the physical nature of design and do not include the social consideration of urban design
- for years, the improvement of public open space has been identified with the main concern of small-scale urban design projects / at the end of 1990s (Law 2508/1997), urban design became identified with the “urban renewal” institution and its tools
- even the majority of Integrated Urban Interventions (Law 2742/1999), that is urban projects addressing also social, economic and environmental problems, were strongly orientated to physical planning and design, whereas the programs that have not focused on it have gradually weakened due to the lack of “culture” regarding strategic urban development plans
- especially in the case of Athens, since the mid-1990s, period of preparation of Athens Olympic Games, the upgrading of its image was set off through projects such as the Unification of the Archaeological Sites and the redevelopment of a number of central squares, the promotion of urban design competitions, as well as large-scale urban projects, including metropolitan transport infrastructure, large sports equipment, the Olympic Village and the construction of emblematic buildings and equipment (Concert Hall, Olympic Stadium, New Acropolis Museum, Stavros Niarchos Foundation Cultural Center)
- it is deduced that in the Greek planning system there is a need of methodological and interdisciplinary studies concerning the enhancement of the role of the urban design



# object and objectives of the research

- the research project *Social impact of urban design for the sustainable development of cities*, conducted by the National Center for Social Research, aimed to assess the emergent social and spatial effects of urban design in Greece, through the empirical study of selected urban design projects implemented in Athens area during the last three decades

	case study	type of urban project	location	reach of the project
<b>A</b>	4 squares complex in central Athens: Omonoia-Kotzia-Varvakeios-Monastiraki	public spaces redevelopment / creation of public spaces network	historical centre of Athens	supralocal metropolitan
<b>B</b>	the New Acropolis Museum and the pedestrian streets Dionysiou Areopagitou and General Makrygianni	public spaces redevelopment / creation of public spaces network "flagship project" – emblematic building of cultural character	historical centre of Athens	supralocal metropolitan international
<b>C</b>	the Stavros Niarchos Foundation Cultural Center	"flagship project" – emblematic building of cultural and educational character	waterfront area of Athens	metropolitan national international
<b>D</b>	the green space along the railway in Moschato	green spaces redesign and upgrading	peripheral municipality of the urban agglomeration	local supralocal
<b>E</b>	a set of open spaces dispersed in the district Agioi Elefterioi - Social housing Units	public spaces redevelopment of a degraded residential district	peripheral municipality of the urban agglomeration	local supralocal



# methodological approaches and tools<sup>1</sup>

the proposed methodological framework was based on the development of a set of interrelated methodological approaches and tools that may be used in order to evaluate the effects of urban design on urban sustainability / this set of approaches and tools includes the investigation of:

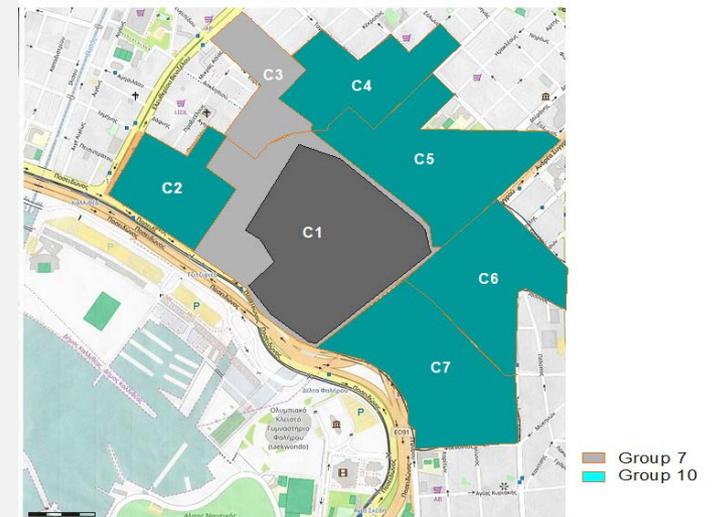
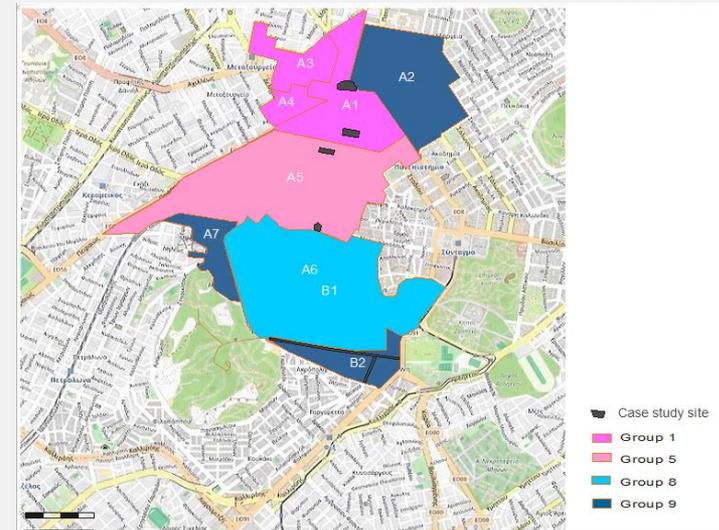
- i) the socio-demographic identification of the surrounding areas of urban design interventions
- ii) the land use changes before and after the implementation of the urban design projects
- iii) the adaptability of business activities in redesigned public open spaces
- iv) the necessity, social acceptance and perspectives of urban interventions through the discourse of planners, researchers and public agents (political and scientific discourse analysis)
- v) the social, economic and spatial changes of redesigned public open spaces as they have been observed and experienced by the people working close to them



## methodological approaches and tools<sup>2</sup>

### socio-demographic identification of the urban projects surrounding areas<sup>1</sup>

- aims to explore the social cohesion and consequently the content and the degree of social mix of the areas in which urban projects have been implemented, in order to assess the integration of urban projects in the local social tissue
- its further elaboration attempts to develop an application tool for the evaluation of the social impact of urban design interventions with regard to the socio-demographic structuring of the surrounding areas in the case of a given set of interventions
- use of the K-means algorithm, in parallel with descriptive statistics (SPSS), for the clustering of different socio-demographic data (Spatial Analysis Units of equal population size -1000inh- as defined by the application Mapping Panorama of Greek Census Data 1991-2011)
- the socio-demographic similarities found, detail the set of the surrounding areas of urban projects under study and provide them, as a whole, with an actual socio-demographic structure rather than a territorial one

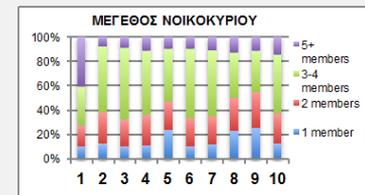
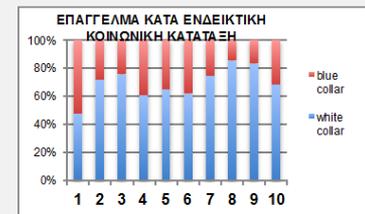
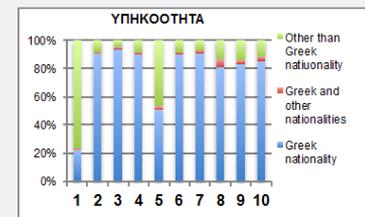
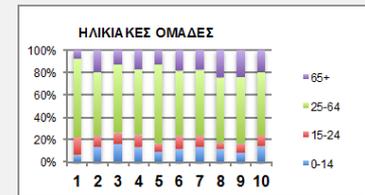
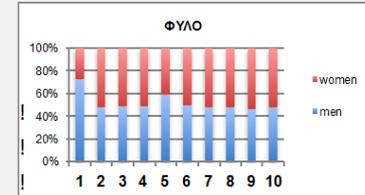


study areas A and B: 4 central squares complex (Omonoia-Kotzia-Varvakeios-Monastiraki) and D. Areopagitou - Gen. Makrygianni pedestrians streets (New Acropolis Museum area) (above) / study area C: Stavros Niarchos Foundation Cultural Centre (down)

# methodological approaches and tools<sup>3</sup>

## socio-demographic identification of the urban projects surrounding areas<sup>2</sup>

- by the K-means clustering, a second-order of spatial units (10 groups) was defined that groups the first-order units (38 spatial units of equal population size) in function of the maximum similarity of their socio-demographic characteristics basing on a broad set of categories (gender, age, educational level, marital status, main occupation, profession, citizenship, household size, residential building type, construction period of the residential building)

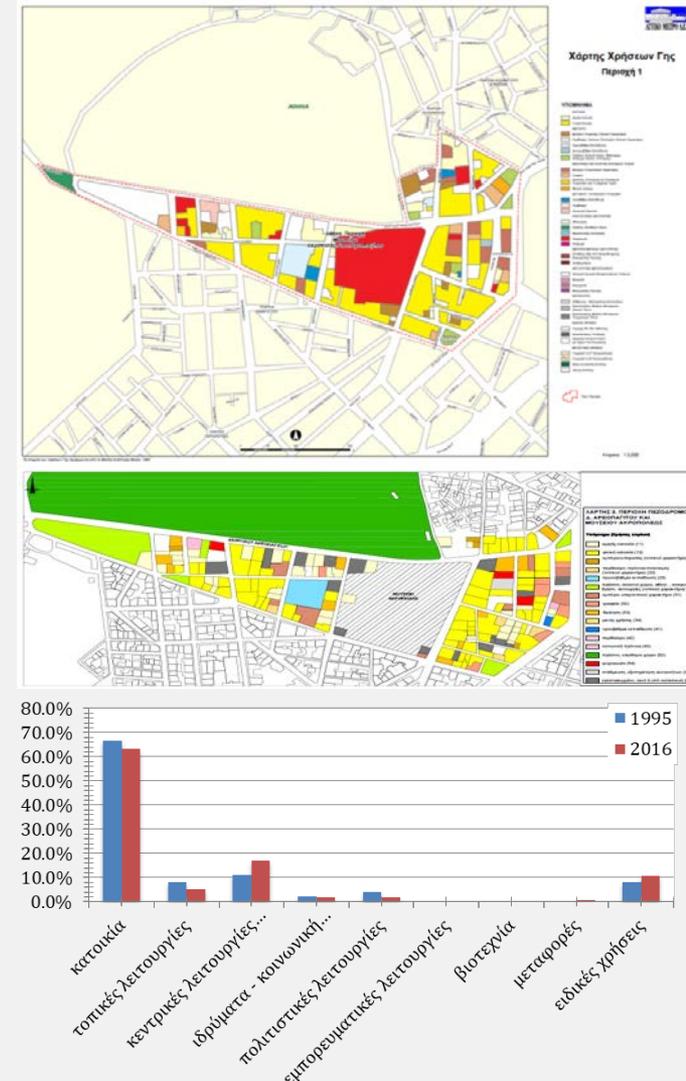


Socio-demographic characteristics of the second-order spatial units arisen from the application of K-mean clustering and grouping the (first-order) spatial units of equal population size

# methodological approaches and tools<sup>4</sup>

## land use changes before and after the implementation of urban design projects<sup>1</sup>

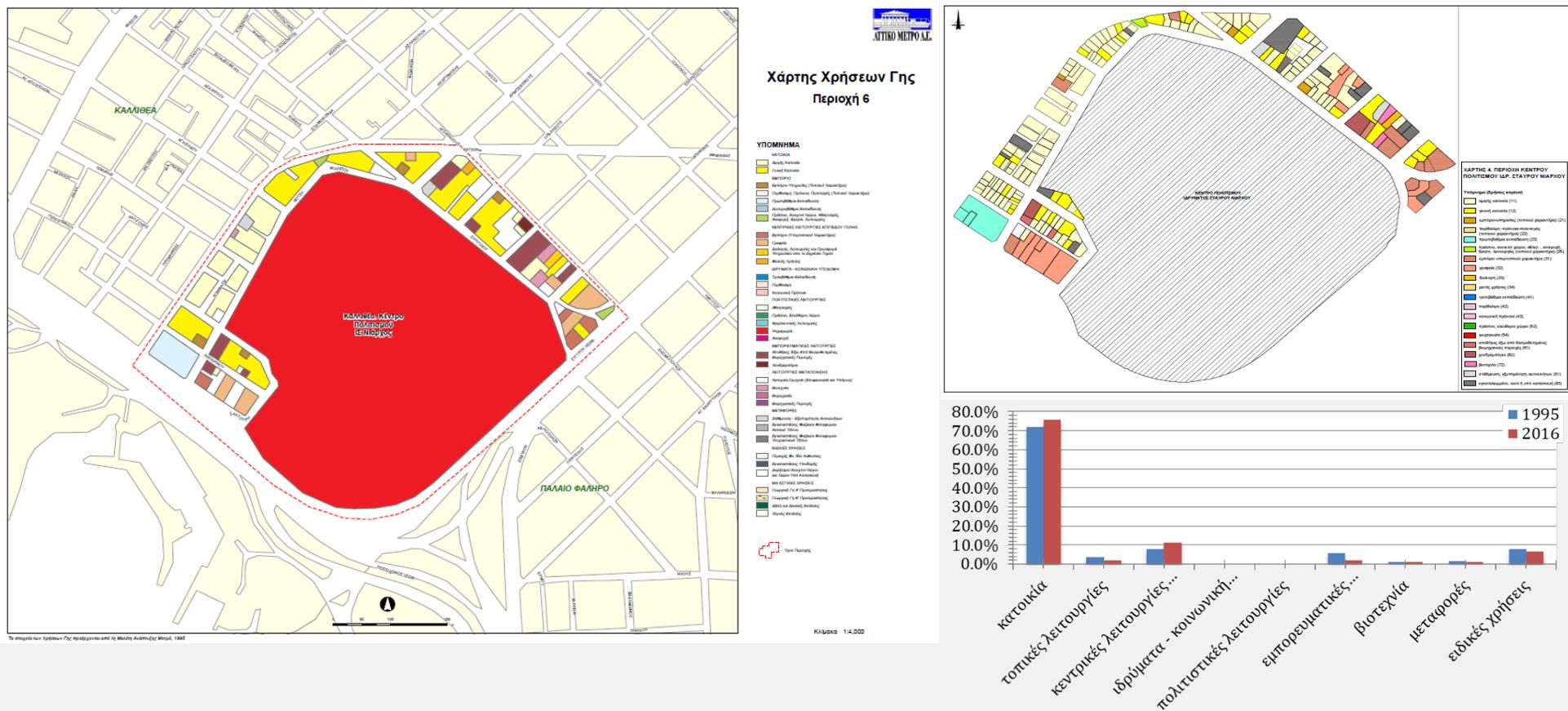
- fundamental tool for the assessment of the impact of urban design project on urban development
- it investigates the spatial and functional organization of land uses within the urban project's adjacent area and its transformations / it may give indications about the mix of land uses, the economic and social regeneration of the study area and, in general, the urban sustainability of the area
- the methodology of land use analysis is based on:
  - thorough recording of existing land uses in two levels of the city's space: a) the ground floor of the buildings and b) the set of the rest floors of buildings
  - comparison of land uses over time for which at least two data series are needed (1995: data extracted from the on-site research made by ATTIKO METRO S.A.; 2016: data derived from our on-field survey)
- classification of land uses into general and specific land uses according to the law
- the statistical elaboration gives information about the prevalence and the shrinkage trends of certain land uses, which, in combination with the spatial pattern of land uses, indicates the formulation of the new identity of the study area



case study B: land uses in 1995 (above) and 2016 (in the middle) / general land uses changes (down)

# methodological approaches and tools<sup>5</sup>

## land use changes before and after the implementation of urban design projects<sup>2</sup>

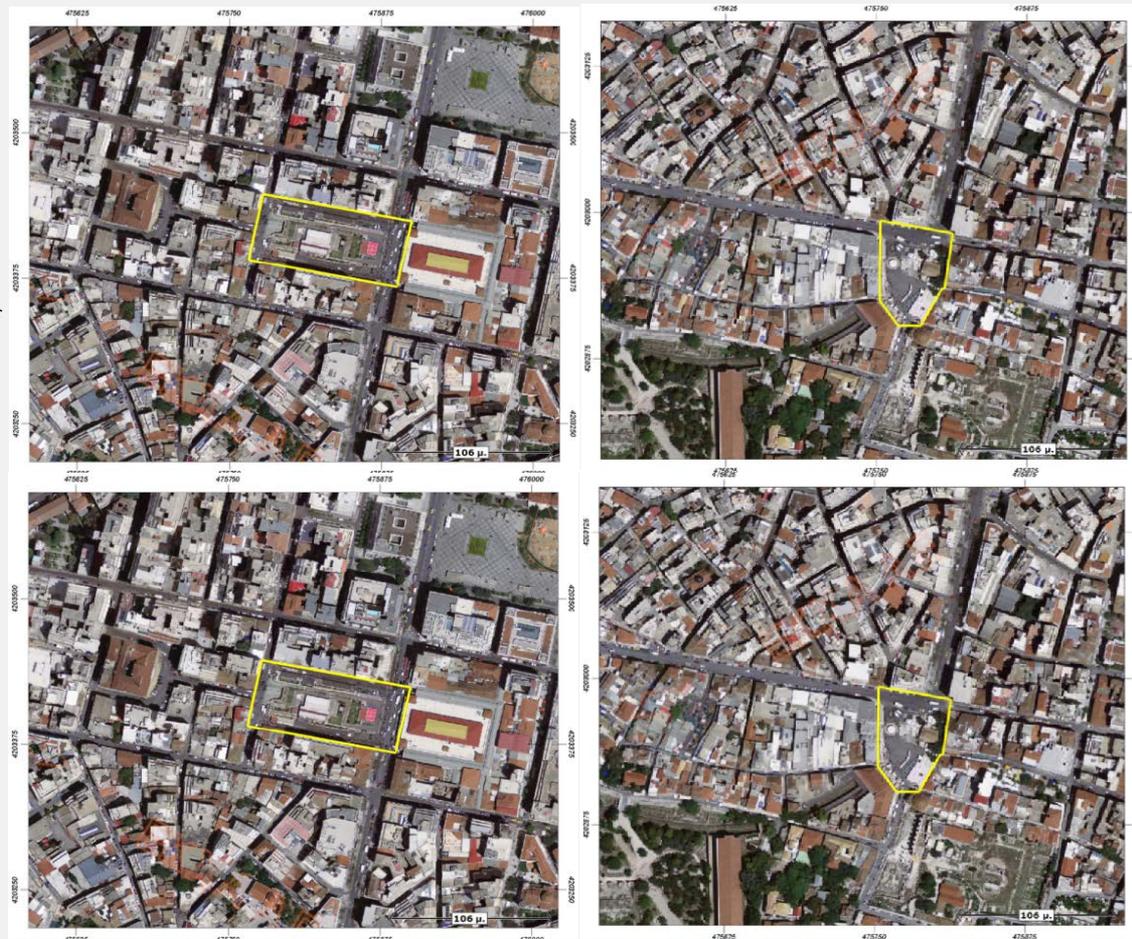


case study C: land uses in 1995 (above left) and 2016 (above right) / general land uses changes (down left)

# methodological approaches and tools<sup>6</sup>

## adaptability of business activities in redesigned public open spaces<sup>1</sup>

- analysis of current business activities in selected public open spaces (case study A of the 4 central squares), in order to assess the degree and type of their commercial character and its modifications
- based on a detailed field recording of all activities (according to their specific land use category as defined by the law) located on the ground floor spaces of the buildings bordering the 4 central squares, including also light or ephemeral constructions and facilities (light kiosks, booths etc.) inside the open space / statistical elaboration of the collected data
- comparative analysis of the results with the findings of the questionnaire described in the methodological approach (v), in order to estimate the degree of business adaptability in the squares after the redevelopment projects



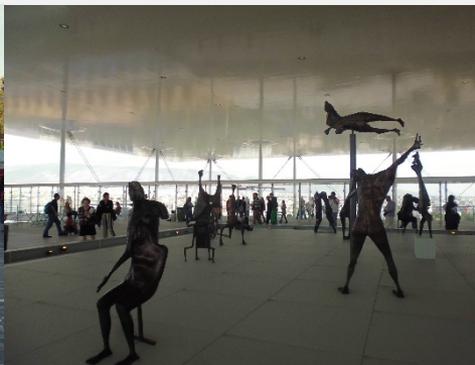
location of the recorded business activities situated on the ground floor spaces of the buildings bordering the 4 central squares: Omonoia (above left), Kotzia (above right), Varvakeios (down left) and Monastiraji (down right)



# methodological approaches and tools<sup>8</sup>

## political and scientific discourse analysis<sup>1</sup>

- this qualitative method was used to estimate the objectives, the necessity and social acceptance of urban design projects, as well as the possibilities and perspectives of their implementation, giving emphasis to the social dimensions of urban design
- from the set of various groups of actors who are usually involved in the process of urban projects design and implementation, the analysis focused on the views and perceptions of two groups of actors:
  - \_ a) public agents participating in the decision-making process as well as in the design and implementation of urban projects
  - \_ b) specialists: creators (such as architects, urban planners etc.) and/or researchers
- two complementary investigations:
  - \_ a) analysis of secondary and primary sources (articles and published interviews of the creators, researchers and authorized actors, archival material originated from the administrative archives of the relevant authorities)
  - \_ b) analysis of semi-structured interviews addressed to people that have a responsible position in the relevant public agents
- Interview Guide formulated with four thematic axes



# methodological approaches and tools<sup>9</sup>

## political and scientific discourse analysis<sup>2</sup>

- for compiling the findings arisen from the two complementary investigations on the published discourse and the semi-guided interviews, 3 general thematic axes of analysis were set, each containing 4 specific thematic axes / the systematic analysis of the findings argues for the interpretative dimension in their description and comment

general thematic axes of analysis	specific thematic axes of analysis
<b>1. necessity and objectives of urban design projects (axis A of the Interview Guide)</b>	(a) character, key objectives and expected results (b) incorporation of the social dimension of the necessity of urban projects in the public agents' texts (c) integration into wider urban strategies (d) urban "models" and/or examples of best practices promoted/implemented by both public agents and creators
<b>2. results and social acceptance of urban projects (axis C of the Interview Guide)</b>	(a) study of the urban projects impact (social, economic, environmental) using quantitative and/or qualitative methods (b) social impact of the urban projects and benefiting population groups (c) acceptance of urban projects as expressed by the attitude of the local community and the users in general (d) issues of use and maintenance
<b>3. possibilities and perspectives of urban projects (axes B+D of the Interview Guide)</b>	(a) collaboration with other public agents and stakeholders, consultation processes and possibilities to co-produce urban intervention programs (b) possibilities for urban projects implementation (c) key priorities of the public agents and proposals for strengthening the social consideration of urban projects (d) available funding tools, particularly in the current context of the economic crisis

## methodological approaches and tools<sup>10</sup>

studying the relationship of a target group of users with the redesign of public open spaces<sup>1</sup>

- quantitative analysis of the findings of a survey carried out with a questionnaire addressed to the target group of people working in businesses established close to the redesigned public spaces / applied in the case study A of the 4 central squares
- aims to collect the opinions and extract information with reference to the knowledge, perceptions and everyday experiences of this target group of users, as well as their empirical assessment of social, economic and spatial effects of urban design projects
- the questionnaire -having the form of face to face interview- is divided in five sections:
  - \_ a) socio-demographic profile of the respondent (gender, age, educational level, professional status, nationality)
  - \_ b) description of the basic characteristics of the businesses in which respondents are employed (type of business, location, main activity, number of employees, rent or owned space, first year of business establishment etc.) and development of businesses in relation to the previous urban projects implementation as well as the economic and refugee crisis in order to weigh up the different effects and their causes
  - \_ c) respondents' perception about the integration of the square's surrounding area in the local social tissue
  - \_ d) evaluation of the current use of the square area based on the empirical observation of the everyday activities that take place, their frequency and the type of users and visitors (nationality, gender, age etc.) as well as their mutation over time
  - \_ e) assessment of the quality of the open space and its evolution highlighting the advantages and drawbacks of the open space that have been provoked by the implementation of various urban design projects
  - \_ f) respondents' opinion about their participation in urban design processes concerning public open spaces

# evaluation and discussion<sup>1</sup>

- the proposed interdisciplinary methodological approaches and tools may provide an integrated methodological framework for evaluating the impact of urban design on urban sustainability, giving emphasis to its social dimension
- the innovation of this integrated methodological framework arises from the compiled quantitative and qualitative findings of the complementary investigations
- these investigations may shed light on social, economic and spatial effects of urban design, highlighting aspects of social cohesion and social mix, economic restructuring, every day activities in open public spaces, social acceptance, necessity and possibilities of urban design projects
- however, not all of the proposed approaches and tools have the same feasibility
- in fact, the socio-demographic identification is the most accessible tool, since it is based on the use of statistical data / the other approaches and tools are based on information collected through field surveys (semi-structured interviews, questionnaires, land uses and activities recording), which may be time-consuming and costly (i.e. need of experts able to collect the necessary information)



## evaluation and discussion<sup>2</sup>

- another important difference among the suggested approaches and tools is that some of them are based on quantitative measurements or data and other on qualitative data / this is of high importance as the quantitative and qualitative findings have a complementary role and, therefore, may contribute to a better interpretation and a more integrated assessment of the social impact of urban design
- in the long-term, quantitative data may comprise a useful database for the monitoring of urban design over time / this database makes feasible the application of meta-analysis method that can conclude in a more objective way on issues related to the social effects of urban design
- the suggested integrated methodological framework may compare the actual results of the projects against the expected results / it may establish the role of urban design project -taking into account its type, its location and its objectives- in the urban sustainability of the city through the evaluation of its social impact
- the institutionalization of a framework evaluating the social impact of urban design is necessary in order to maximise its social benefits / its implementation should be done from high-qualified staff in the public agents (municipal or metropolitan authorities) that are responsible for the design and implementation of urban projects





thank you for your attention...