Training Decision-Makers: GEODESIGN Workshop Paving the Way for New Urban Agenda

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Abstract. GEODESIGN represents an effective framework promoting collaborative planning and decision-making as an incremental process based on robust methodological guidance. In this application, GEODESIGN had been adopted as a tool for training decision makers in "facing planning challenges deriving from ITI Urban Agenda development" according to "sustainability" and "climate responsive principles". The case study represents a joined activity realized by the Municipality of Potenza (member of the EU Climate Adaptation Partnership) and the LISUT Laboratory (Engineering School at UNIBAS). The results regard the comprehensive approach in terms of participation capacity of decision makers without any background in planning disciplines and unveiled the weaknesses of traditional approach mainly based on "building agreements" without any measurements of spatial evidences or scenarios comparisons.

Keywords: GEODESIGN · New Urban Agenda · Decision making · Political Academy

1 Introduction

GEODESIGN represents a suitable framework in order to develop "urban vision" in urban planning practices. It is an effective way to organize and deploy participatory planning according to the negotiation approach according to numbers of experiences reported in scientific literature [1–7].

GEODESIGN represents relevant research focus for LISUT laboratory and several experiences had been conducted in recent years on selected case studies [8–10]. Mainly we included GEODESIGN among those technical tolls necessary to support planning processes at different scales [11] especially promoting the methodological integration of GEODESIGN with Logical Framework Approach (among others [12]).

According to C. Steinitz [1] GEODESIGN represents an inclusive approach (it involves not only technicians but all actors involved in decision making processes) supporting *"informed negotiation"*.

Concerning negotiation we address this concept in a positive procedural vision of building agreements: GEODESIGN it is not a way to aggregate some strong individual

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interests against other weakest groups of participants, but mainly a way in which the spatial evidences of decisions (namely "designs" in GEODESIGN taxonomy) becomes a way to make more and more explicit the evidences of individual proposals contributing to the strategic decision making process.

The huge demand for training people, citizens, technicians and politicians in participatory planning represents the basic step of this work. In facts, we adopted GEODESIGN in order to simulate a process of urban design according to the rules of ITI planning (Integrated Territorial Investments procedure promoted by EU Operative programs 2014-2020). Through this simulation and the active participation of politicians and technicians of the Municipality of Potenza (Basilicata Region Capital city) the basic learning by doing approach had been developed.

This papers reports general consideration concerning the advantages in adopting GEODESIGN for New Urban Agenda development. Then the "Potenza Political Academy" case study is described, reporting details about GEODESIGN workshop organization and conduction. Finally the discussions and conclusions section reports main evidences of the learning by doing process re-launching research perspectives in GEODESIGN applications in urban sustainable development planning.

2 Geodesign: Background for NUA Visioning

The UN New Urban Agenda [13–16], based on its five main pillars of implementation[1]: lays out standards and principles for planning, aiming at making cities a more livable place according to a shared vision of development.

We are in the era in which City Development planning becomes a challenge in order to face world population growth oriented, according to main trends, to concentrate in the huge metropolitan areas. And great efforts are driven in this domain of Urban transformation facing urban growth according to sustainable criteria (one of the key domain is represented by Smart City studies [17–20]). But the NUA deals with growing urban areas as much as with declining rural context. It is evident that while traditional planning provided models. Methodologies and approaches in order to deal with urban expansion, not enough tools are available to tackle sustainable solution in order to manage urban decline. It is the case small and medium-small size town competing with metropolitan areas.

As discussed in previous works [15, 21, 22], we may put effort in such secondary challenges considering that in such declining context the following principles has to be adopted in order to change planning approach according to NUA common perspective and local needs:

1. Planning "goes toward" Governance
2. Planning Performance has to be assessed
3. Inclusive, equitable, effective and sustainable strategies has to be designed

[1] National urban policies, urban legislation and regulations, urban planning and design, local economy and municipal finance, and local implementation.

The process of developing a "vision" for a place and therefore to define a long term strategy is far to be an easy matter. Generally such approach, in a multi-agents framework, delivers conflicts among groups, it takes time, it needs huge technical resources (especially constructing knowledge of the place).

GEODESIGN drives such processes in a framework reducing time for decisions and actions, comparing different interests and priorities, towards feasible decisions.

3 Potenza Political Academy Geodesign Workshop

The application proposed in this work lays to deliver main components of an urban development strategy according with EU ITI rules ITI promotes, within the complex procedures of Regional Operative Program implementation, a way to give local authorities tools to self define integrated investments programs implementing thematic objectives adopted for regional development strategies. It becomes a critical stage of planning implementation where a Municipality can get the resources to realize its planning previsions. In current practice it becomes a political decision frame in which daily issues mainly prevail on pre-determined planned strategies for urban development and therefor a way to neglect urban planning. The results could be a list of investments, infrastructures, public aids, not balances, un-effective in a long term strategy, oriented fix specific urban criticality without any systemic view of the whole urban structure.

In order to avoid this scenario in urban ITI delivering process, some methodological issues has to be talked: decision makers needs methodologies in order to actively participate in the process, time has to be controlled in order to balance the intensity of discussion among the ITI, experience and competences to contribute in decision making process has to be owned by stake-holders.

Therefore we decided to organize a training session for decision makers and technicians based on GEODESIGN workshop experience

The workshop preparation had been delivered by the research team at LISUT lab, involving engineering master students. The selection of relevant systems, the territorial analysis and the land suitability evaluation maps was prepared at technical level and then proposed to the workshop participants.

The Workshop was organized by the Potenza Municipality in the frameworks of a broader transnational cooperation activities conducted at EU level: namely Climate Adaptation Partnership. One full day of activities had been performed in Potenza (17th January 2020) according to the main topic of the event: Political Academy.

The invited participants to the workshop were policial representative of the town council of Potenza, including the Mayor, plus technical staff of the main municipal departments dealing with ITI planning and management. Researchers, PhD students and master students in engineering participated to the workshop as mentors, guiding actors through the methodological stages of the GEODESIGN and explaining technical analysis and the use of the online platform GeodesighHUB[2].

[2] https://www.geodesignhub.com/ by Geodesign Hub Pvt. Ltd., Dublin, Ireland.

Posters in the room documented the evaluation maps and become discussion generator among technicians and politicians (Fig. 1).

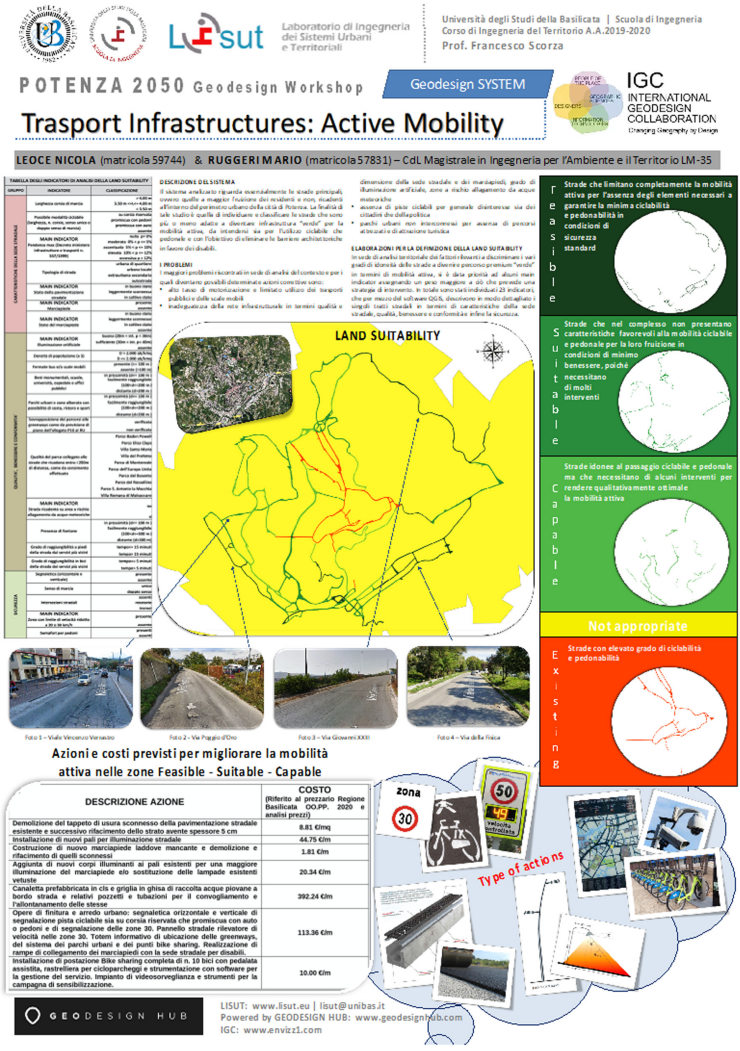

Fig. 1. An example of the poster dealing with the system: "Transport infrastructures: active mobility".

The design phase and the change teams' design selection was facilitated by a positive interaction between politicians and technicians. During the presentations of the synthesis some political conflicts arose between majority and minority groups.

Finally the negotiations payed the bill of a simulated discussion delivered in a learning event. The level of interactions becomes not effective in terms of conflicts resolution and agreement reinforcement among participants (Fig. 2)..

Fig. 2. Change team discussion session.

The de-breathing session produced numbers of interactions showing a general understanding of the methodological framework adopted and the usefulness in a process of ITI development for urban strategy building

4 Discussions and Conclusions

GEODESIGN represents a robust framework to be adopted as a Decision Support System in planning. Far from to match its essential linked broad cathegories [23] to a specific planning procedures, we have to recognize its horizontal applicability to a huge scope of planning issues.

If we want to place the experience held in Potenza among the common process types identified in the IGC 2019 (International Geodesign Collaboration conference), it represents a "multiparticipant workshop-style engagement" [23], oriented to show the methodological advantages of GEODESIGN application and starting a learning by doing process in local decisionmakers group.

The level of personal-learning derived from the participation in the workshop has not been measured by specific survey, but in the final discussion session several positive remarks had been declared by participants (mainly politicians). Their appreciation toward the experience mainly focusses on the applicability on the approach in real-case decision making concerning urban transformations. They expressed a quite

evident understanding of the GEODESIGN taxonomy, remarking properly the stages of the workshop. Those are the elements that allowed us to assess the effectiveness of knowledge transfer even if limited to the essential concepts.

This application is close to the general assessment of the learning experience reported by Albert and Ott [24] for the IGC 2019. Participants learned a lot both concerning the understanding of the case study features and of the methodological background.

What was not fully discussed during the workshop (mainly due to the simulated approach adopted) is the implicit process connecting "identified problems" with "explicit assumptions" leading to effective "design" proposed as potential solutions. This is a conceptual framework strongly influenced by the messiness of the design actions [25]. It should be assess at individual level and elicited in the change team approach to synthesis building during GEODESIGN sessions. This is a critical element connecting knowledge of the place with problems detections and consequent assumptions identification (so called "wicked" problems [26]).

The "acceptability of geodesign method" was demonstrate during the experience: participants followed the workshop process and easily adapted their way to consider the city and its development perspective according to the GEODESIGN steps.

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