PARTICIPATORY POLICY MAKING IN FORESIGHT STUDIES AT THE REGIONAL LEVEL - A METHODOLOGICAL APPROACH

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Abstract
The issue of stakeholders' and citizens' engagement in policy decisions is nowadays at the forefront of participatory planning efforts at the various spatial levels. Involving stakeholders and citizens in participatory planning is always a challenge for planners, which stresses the need for effective tools, capable of dealing with respective planning efforts. The focus of the present paper is on the development of a methodological framework, which builds upon the integration of an analytical scenario planning model – the LIPSOR model, in support of future anticipation and structuring of scenarios, with a tool supporting stakeholders' and citizens' engagement - the Focus Group methodology, which aims at the support of planners in structuring the context of the participatory process and producing the necessary qualitative information, used in the scenario planning process. The use of the proposed framework can guide the efforts of planners to incorporate views and visions of a range of local actors, when exploring future development paths of a region/problem at hand. The experience gained from the application of this framework in a specific case study at the regional level is also presented, drawing upon the advantages and disadvantages of such an approach, while finally some conclusions are drawn.

Keywords: *participatory planning, policy, scenario planning, LIPSOR model, Focus Groups, regional level*
JEL Classification: R0

Introduction

Within a globalized environment, characterized by complexity and uncertainty, the issues of future anticipation and scenario planning are considered as the milestones for taking policy action, which can make desirable outcomes more likely to happen. Moreover, engaging stakeholders and citizens in a participatory planning context can lead to policy decisions that are well consolidated into social acceptance, thus indemnifying consensus and commitment of local societies, which drive the successful implementation of policy actions (Stratigea et al., [1]).

But what should be the *breadth* of stakeholders' and citizens' engagement into such kind of future studies and how should the participatory process be structured? The structure of the participatory process and the type of participants that need to be engaged in a future exercise are of central concern of planners and decision makers, not only because there is a need to produce legitimate, robust and relevant results, but also because these can assure better acceptance in the implementation phase of policy decisions (Handbook of Knowledge Society Foresight, [2], Stratigea et al., [1]).

Along these lines, approaches and tools that support the process of integration of future anticipation and planning efforts with citizens' involvement can add value to the efforts of decision makers and planners in their work (Stratigea et al., [1]).

The *goal* of the present paper is to elaborate on such a participatory scenario planning framework, built upon the integration of a *scenario planning analytical model* – the LIPSOR[1] model – supporting future anticipation and decision making; and a participatory tool supporting *stakeholders' and citizens' engagement* - the Focus Group methodology. The LIPSOR model, constituting the core of the proposed participatory scenario planning framework, needs to be properly fed with information obtained by a range of actors (experts, stakeholders, local administrations, pressure groups and citizens). The identification of *key issues/questions* that need to be addressed in order to gather information that fulfils data needs of the various scenario planning LIPSOR modules demarcates the context, the structure and the type of participants to be considered in the participatory process (Focus Groups discussions), thus feeding LIPSOR with targeted information in support of the structuring of possible future scenarios of the region/problem at hand that incorporate experts' knowledge but also local views and desires.

The *structure* of the paper has as follows: in Section 2 are shortly presented the two tools, upon which the proposed methodological approach is built, namely the LIPSOR scenario planning model and the Focus Group methodology; in Section 3, the integration of these two participatory tools is presented that aims at steering the efforts of planners in structuring the participatory decision making context by identifying the key issues/questions that need to be raised, the type of participants to be involved, the structure of the discussion etc., in order to gather the necessary input, feeding the different stages of the LIPSOR model; in Section 4 is shortly presented the experience gained by the application of this framework in a specific case study at the regional level; while finally, in Section 5, some conclusions are drawn.

Tools Involved in the Proposed Methodological Framework

In the present section are shortly presented the LIPSOR participatory scenario planning approach and the Focus Groups methodology.

The LIPSOR Approach

The LIPSOR model consists of *five discrete modules* (see Figure 1). More specifically:

The *MICMAC module* explores the *key variables* of the study area/problem at hand and formulates the basic questions as to their future states. The scope of this module is to reveal the key driving forces that may affect future developments of the system at hand. Such knowledge is valuable for decision makers in order to define policies that can guide the system towards desired ends. The module is based on a *'structural analysis'* of the system at hand, exploring the *'influence – dependence'* relationships among a set of selected variables. These variables correspond to the attributes of the internal and external environment of the system, while their selection is conducted on the basis of their role as drivers of change of the system at hand. Structural analysis attempts to study the inter-relationships between the variables considered (Godet, [3], [4]), in order to depict those *key variables* of the system, both internal and external, which are capable of driving the system's future states.

The *MACTOR module* is focusing on the study of the *actors' games*[2], exploring the role of the basic stakeholders in the study system. More precisely, the stakeholders involved in the region/problem at hand are studied on the basis of power relationships, goals and objectives, projects in progress, preferences, motivations, internal means of action, past strategic behaviour, constraints, interests, potential strategic moves, attitudes, personal profiles,

[1] The LIPSOR approach (MICMAC, MACTOR, MORPHOL, SMIC και MULTIPOL modules and related software) has been developed by Michael Godet in the Laboratory for the Investigation in Prospective and Strategy (LIPSOR).

[2] Actor's games: seek to gauge the balance of power among actors and study their convergences and divergences with a certain number of associated stakes and objectives (Godet et al., [5]).

alliances, strengths and weaknesses, etc. (Godet et al., [5]). The scope of the module is to get insight on:

- The *influence – dependence relationships* among the various actors functioning in the area of concern through a cross-impact analysis of actors, taking into account the actors' profiles. This will provide planners with information on potential alliances–power relationships in the region at hand.
- The *attitudes of the various actors* (convergence or divergence) in respect to the planning *objectives* of the area/problem at hand, i.e. how actors perceive/resist to the objectives set, through a cross-impact analysis of actors by objectives. This knowledge supports planners to refine or even reorient objectives in order to reflect local peculiarities and stakeholders' interests and also define those policies, which will contribute towards conflicts' resolution.

The *SMIC-PROB EXPERT module* supports an *expert-based approach* that aims at gathering experts' opinions on a certain number of hypotheses referring to the study system. The goal of this step is to define single and conditional probabilities of these hypotheses, upon which can be based the structuring of *probable*[3] *future scenarios* of the study region at hand. The SMIC-PROB EXPERT approach belongs to a greater group of explorative approaches, in which the 'cross-impact analysis' concept is used to describe the way that a future state of a system can be considered, through the influence - dependence relationships among different hypotheses.

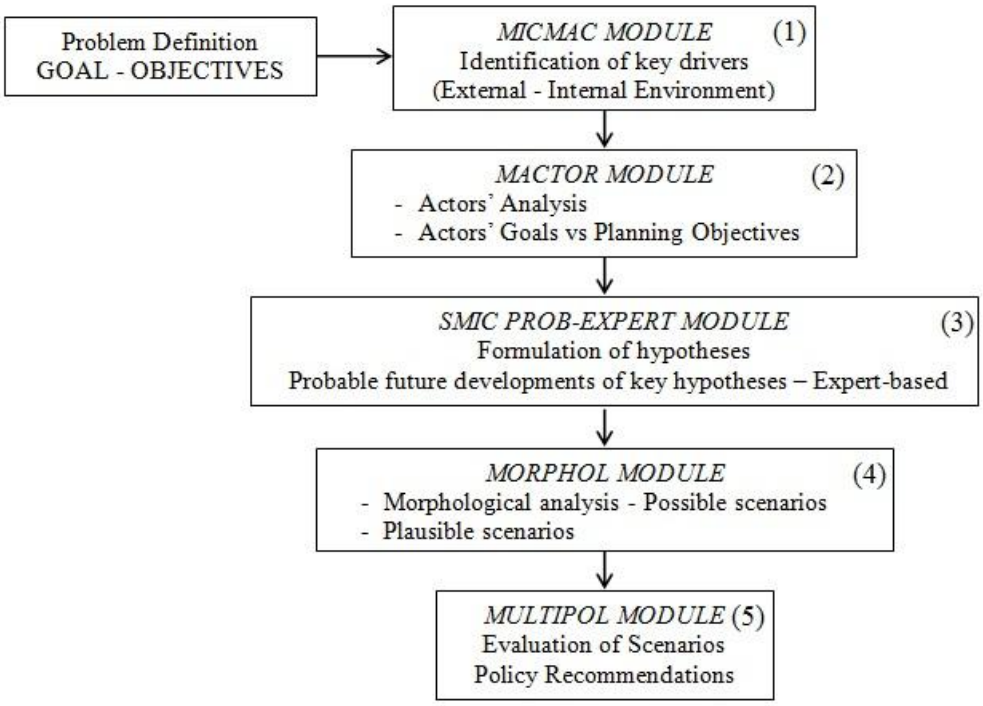

Figure 1: The LIPSOR approach
Source: Godet et al. [5]

The *MORPHOL module* is used for a systematic exploration of *all possible future states* of a system through its morphological analysis[4], structured on the basis of all combinations of possible future outcome of various key components. The total number of combinations

[3] It should be bear in mind the distinction among *probable* (trends based scenarios – forecasts), *possible* (all possible future states), *desired* (visionary scenarios) and *plausible* future developments (selected 'futures' on the basis of certain inclusion-exclusion criteria).

[4] The morphological analysis of a system is a generalized method for structuring and analyzing complex problems/systems, which (Erikson and Ritchey, [6]): are inherently non-quantifiable; contain genuine uncertainties; cannot be causally modeled or simulated; and require a judgmental approach.

corresponds to the whole set of possible scenarios i.e. the *morphological space*. The method integrates, at this stage, all kinds of information acquired at the previous LIPSOR modules. It can deal in a systematic way with multi-dimensional problems with non-quantitative dimensions and can (Erikson and Ritchey, [6]):

- provide the ground for a well-structured discussion concerning complex problems;
- fit well for carrying out participatory discussion, engaging groups of experts/participants that represent different areas of competence;
- produce an 'audit trail' and documentation i.e. one should be able to trace what is being done and how certain conclusions are reached;
- fit well for structuring scenarios and strategy alternatives.

The *MULTIPOL module* supports the *evaluation process* and helps policy makers to make decisions within different decision environments (scenarios). In such a context, it evaluates the scenarios delivered by the previous module (MORPHOL), attempting at the same time to define strategic directions (policies) and choices (actions/measures) for the effective implementation of each scenario. MULTIPOL, as a *multi-criteria evaluation method*, incorporates two different types of evaluation:

- the *actions/policies evaluation* that evaluates actions (measures) in respect to policies, indicating which actions best fit to each single policy. The output of this process is a classification of all actions (actions' prioritization) as to their performance in each policy; and
- the *policies/scenarios evaluation* that evaluates policies in respect to scenarios, indicating the policy which best fits to each specific scenario. The output of this process is a classification of all policies (policies' prioritization) as to their performance in each scenario.

It should be noted that the LIPSOR approach enables each module to function both independently and as a stepwise approach, dealing with foresight studies in a coherent, systematic and analytical mode.

The Focus Groups Methodology

As serving society's goals and interests is the main focus of every planning effort, it is quite important to use appropriate tools which will, in an effective and constructive way, incorporate thoughts, feelings, fears and perceptions of the public as to the planning problem at hand. Such an effort calls for the use of more pluralistic and complementary approaches (Godet, [3], [4]), which are capable of providing such kind of information to decision makers and planners. The focus, in such a context, is not only on the results obtained, but also on the way *tools can structure thoughts* and support an *effective communication platform* among participants in a specific theme.

The call for public participation in science builds upon the confidence that lay people are able to discuss complex issues under the condition that they receive adequate and understandable information. The Focus Groups methodology is a promising scientific tool and a suitable social setting for organizing such a social debate (Kasemir et al., [7]). It is also a promising participatory tool for arriving at policy-oriented assessments.

Focus Groups may serve as a platform for *social learning* that brings together scientific knowledge and behavioural patterns of citizens. They can be described as *guided group discussions* that are focused on a specific topic. In contrast to ordinary group discussions, *purposive information on the focal issue is provided as input and/or stimulus to Focus Groups discussions*.

The key attribute of Focus Groups as a research method is the *interaction between the members of a group*, which diversify them from interviews, where interaction is taking place between the interviewer and the interviewee. The whole process is characterized by its

dynamic nature and *synergetic effects*, which results in far more information being generated that in other research methods (Berg, [8]; Stewart and Shamdasani, [9]).

Focus Groups methodology can be defined as a *structured process* of dealing with complex issues, using knowledge from various scientific disciplines and/or stakeholders and lay people, so that integrated insights are made available to decision makers (Rotmans, [10]). The steps undertaken within the Focus Groups methodology are presented in Figure 2. The whole process is divided into three stages, as follows:

- *Stage 1* refers to the *planning of the whole exercise*, including decisions on the: number of sessions and time devoted to each session; selection of participants e.g. type and number of participants; planning of the discussion such as creating an interview guide, preparing the material to be presented to the participants for the issue at stake, selecting and organizing the meeting place and selecting and training the moderator of the whole process.
- *Stage 2* refers to the *running of the whole exercise* on the basis of the predefined interview guide. The process starts with the presentation of the informative material, designed to introduce the issue and motivate discussion, while round discussions within the Focus Group are encouraged, where participants are expressing their views/opinions on a well structured set of questions.
- *Stage 3* refers to the *elaboration of results* and the production of the *final report*. Various tools of qualitative analysis can be useful in this respect (Stratigea et al., [11]).

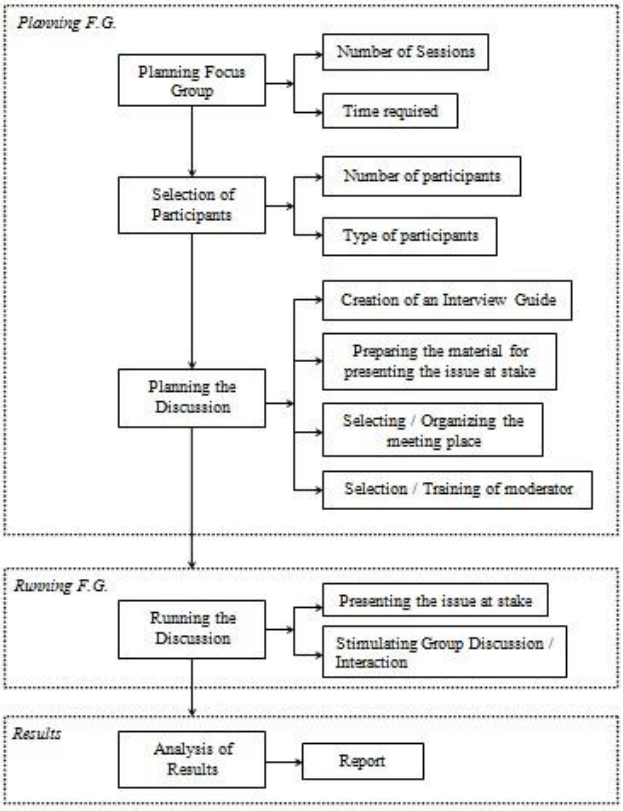

Figure 2: The Focus Groups methodological approach

Based on deliberately presented input and specific rules, Focus Groups can be considered as social experiments, capable of producing collective judgments, revealing communication barriers, studying conflict behaviour, acquiring local knowledge, creating acceptable options of the study theme, synthesizing information, etc. In such a context, the role of Focus Groups is more to increase insights than to produce generalized results (Dürrenberg et al., [12]).

Integrating the LIPSOR and the Focus Groups Approaches

In this section is presented the way in which the LISPOR scenario planning approach and the Focus Group methodology were integrated for the structuring of future development scenarios in a specific case study region (Herakleion-Crete) (Stratigea et al., [1]). Towards this end, the *issue* of concern lies on the identification of the *key issues/questions* that need to be addressed in a Focus Groups participatory exercise, so that the information delivered by participants can feed the various modules of the LIPSOR scenario planning model. The knowledge of the *key issues/questions* is of importance for defining the *context of participation*, and can orient planners to properly:

- define the *context* of the Focus Groups participatory process, in order to produce the desired output (guide the structuring of the discussion, identify issues to be addressed, etc.);
- engage the right *group of participants* (experts, decision makers, local administration, pressure groups, lay persons, etc.), based on the type of data demanded at each stage of the participatory planning exercise;
- prepare an *interview guide*, stimulating fruitful *discussions / interaction* among participants; and
- select *informative material* as a stimulus to Focus Groups discussions.

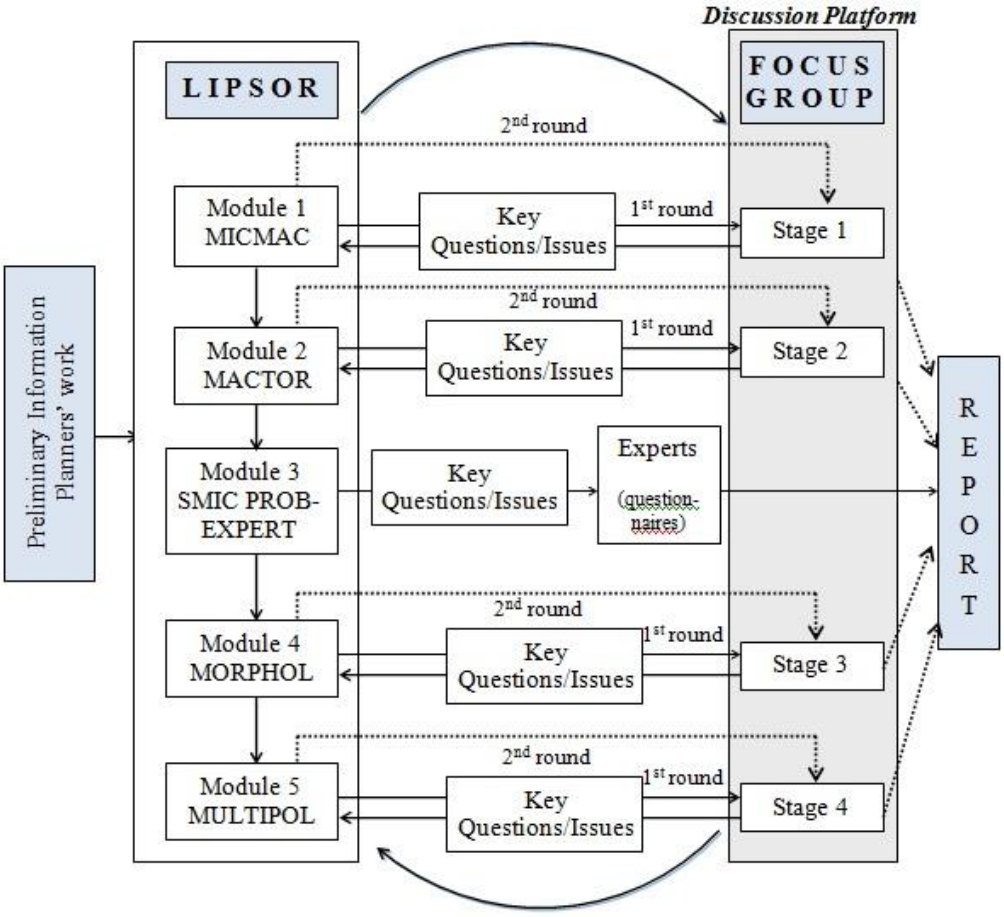

Figure 3: Integrating the LIPSOR and Focus Groups tools in participatory planning

More specifically, the integration of the two previously described approaches (LIPSOR model and Focus Groups methodology) in the specific case study (Herakleion-Crete) was accomplished by following two discrete steps (Figure 3):

- *Step 1*: a first round of interaction has taken place between planners on the one hand and decision makers and participants on the other (stakeholders, experts or citizens, depending

- on the scope of each module). Based on the planners' preliminary work, participants are getting informed on the issue at hand and are provided with a first round of the LIPSOR model results for further discussion. These results are elaborated by them in a Focus Groups context in order to provide planners with information on their reactions, perceptions, opinions, ideas, proposals, objections, dreams, etc. The output of the Focus Groups discussion enriches planners' understanding of the system at hand by providing information on the views of participants in respect to the issues raised. This information provides the ground for a second round of calculations by the LIPSOR model and the production of new, more refined results.
- *Step 2*: the refined results produced in the first stage are subject to a *new round of Focus Groups discussions*, where further refinements are taking place, which lead to the production of the final outcome of each stage to be forwarded to the final report, being the output of the whole process.

The above two steps are taking place within every single module of the LIPSOR model, since each of them serves a different purpose of the planning process and has module-specific data needs, calling for a different context of Focus Groups discussions and eventually a different target group (synthesis of participants) in order to yield the desired output that supports the different stages of the LIPSOR scenario planning process.

In the following is presented a step by step description of the stages of the proposed methodological approach of Figure 3, aiming at the integration of the LIPSOR analytical scenario planning model with the Focus Group methodology, placing emphasis on the participatory context that will provide information for feeding the LIPSOR model. More specifically, light is shed on; the *key issues/questions* raised at each different stage; the *scope* of each stage of the Focus Groups participatory process; the *type of participants* involved; and the *final outcome* expected out of each Focus Groups discussion.

The MICMAC Module

The main focus of the MICMAC module is on the definition of a set of *variables* describing the system at hand and its environment, together with the *influence-dependence relationships* among these variables, presented in the form of a 'structural matrix' (Table 1). Filling this matrix with information presupposes to give answer to a large number of questions, defining the influence – dependence relationship between each pair of variables considered; and the intensity of this relationship. This process can provide a very good insight of the system at hand and its environment, on the basis of the examination of causal relationships between every single pair of variables involved. Questions posed cover all four kinds of the following influence-dependence relationships:

- influence-dependence relationships among *internal variables* of the system at hand (Box I of Table 1) – intensity of relationship;
- influence-dependence relationships between variables of the system at hand and variables of its external environment (Box II of Table 1) – intensity of relationship;
- influence-dependence relationships between variables of the external environment and variables of the system at hand (Box III of Table 1) – intensity of relationship; and
- influence-dependence relationships among variables of the *external environment* (Box IV of Table 1) – intensity of relationship.

- **Table 1**: Structural matrix

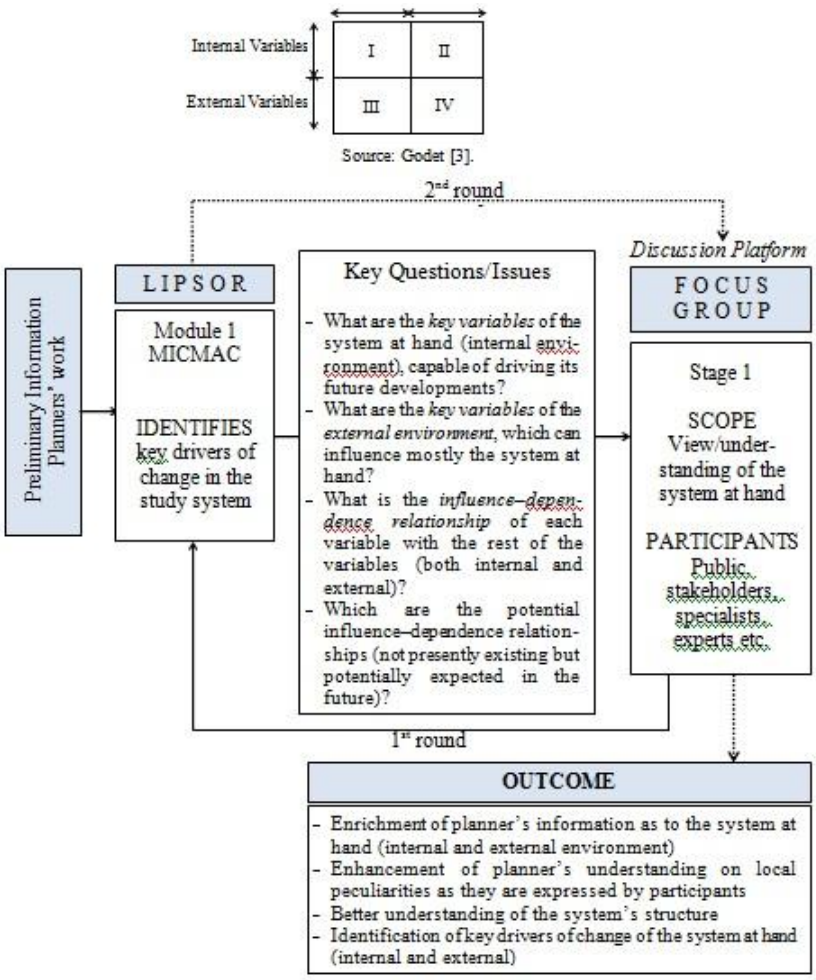

Figure 4: Participatory context aiming at feeding with information the MICMAC module

The structural analysis of the study system (region) is conducted in a Focus Groups *participatory mode*, with various actors actively participating in the process (stakeholders, public administration, lay people, specialists, pressure groups, etc.). The aim of the participatory process at this stage is to refine the preliminary information describing the study system, as this is predefined by planners. Thus the *tasks of participants*, entering the Focus Groups discussions, are to:

- enrich the *range of variables* entering the structural matrix, i.e. the variables better describing the system at hand and its external environment; and
- refine the *content (data)* of the structural matrix provided by planners i.e. values attached to each cell of the structural matrix, which is a good point for stimulating interaction within the Focus Groups discussion.

The context of participation, designed to produce data input that feeds the MICMAC module, is perceived as an *iterative process*, running in two steps (Figure 4):

- The *first step* provides participants with information on the external and internal environment of the study system, as perceived by planners, upon which are based a first round of MICMAC results. Based on these results, a *first round of group discussion* among Focus Groups participants takes place. This discussion enriches planners' understanding of the study system, providing valuable information on the key drivers (variables) of the internal and external environment, as perceived by the participants. During the participatory process, certain ideas can be revised, new ideas can emerge, new

- variables can emerge that were previously considered as unimportant, preconceived ideas can be questioned, etc.
- In the *second step*, the refined information obtained from the first step, feeds back the MICMAC module and a *second round of analytical calculations* is taking place. Results of these calculations are subject to further refinement by participants, in a second round of Focus Groups discussion. The output of this process provides information on the *key drivers of change* of the system at hand, both internal and external, which is forwarded to the report stage, as the final outcome of this module, but is also used as input for the next stages of the planning process.

The MACTOR[5] Module

This module aims at getting insight into the power relationships among stakeholders (actors) activated in the study system and their perception/attitude as to the planning objectives (convergence or divergence). This knowledge is quite important for planners as it can provide information on potential *conflicts* both among stakeholders in pursuing their goals as well as among stakeholders' objectives and planning objectives set in a certain study. The impact of these conflicts on the planning process depends on the *balance of power* among actors and will largely determine the future development of the system at hand towards the one or the other direction. Thus identifying and resolving conflicts is of crucial importance for the successful implementation of policy decisions.

The *actors*[6] considered are stakeholders, selected on the basis of their direct or indirect control on the key variables of change in the system at hand, as these are identified by the MICMAC module. Actors' information can be gathered by *qualitative interviews*. In such an effort, planners can cope with problems as to the willingness of actors to provide accurate information or information in respect to their goals, strengths and weaknesses, strategic moves, etc.

As long as this information is gathered, further elaboration is undertaken in a Focus Groups context. Participants can be *'experts as representatives of groups of stakeholders*' (Godet [3], p. 106). The discussion starts with the description of the planning goal for the system at hand, which is further analyzed by certain objectives. Then the Focus Groups *participatory process* develops in two steps, namely (Figure 5):

- The *first step* aims at getting insight into the role and actions of stakeholders in the study system, which can reveal power relationships of stakeholders, their objectives, strengths and weaknesses, strategic moves, etc. The analysis is based on the: qualitative information gathered on stakeholders considered; information on the influence-dependence relationships among actors ('actor by actor' cross-impact analysis); and the information on influence-dependence relationships between actors and planning objectives ('actor by objective' cross-impact analysis). The above information represents the planners' understanding, upon which are based the *first round of analytical calculations (MACTOR results)* that are also presented to experts. Then experts are invited to an exhaustive discussion in respect to the role and specific characteristics of stakeholders, relevant to the key variables of the system under study, while they are also invited to further elaborate on the 'actor by actor' and 'actor by objective' influence-dependence relationships, which will refine planners' input and will feed back the MACTOR module for a *second round of analytical calculations*.
- In the *second step*, the refined results obtained from the second round of calculations are subject to a second round of experts' Focus Groups discussion, where these are subject to further refinement, aiming at drawing final conclusions as to:

[5] MACTOR method – Matrix of Alliances and Conflicts: Tactics, Objectives and Recommendations, developed by Michael Godet in 1985.

[6] Experience shows that a total of 10-20 actors constitute a realistic and operational number for analysis in the MACTOR module (Godet, [3]).

- ✓ the *power relationships* among the various actors functioning in the study area; and
- ✓ the *attitudes (level of resistance)* of the various actors in respect to the objectives of the study;

which are forwarded to the report stage, as the final outcome of the MACTOR module.

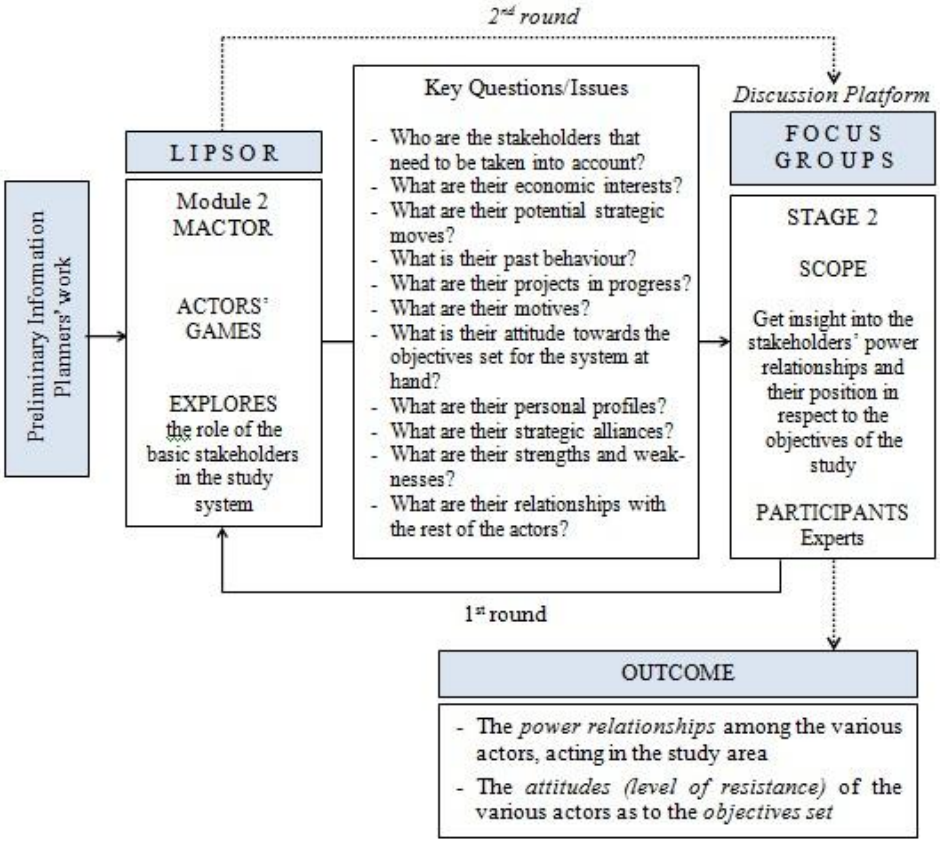

Figure 5: Participatory context aiming at feeding with information the MACTOR module

The SMIC[7] PROB-EXPERT Module

The application of the SMIC PROB-EXPERT module calls for a *participatory approach*, where participants are *experts* in various fields. The scope of their involvement is to estimate the probability of certain hypotheses to occur on the basis on their professional expertise. Experts are selected to represent different fields / sectors, depending on what are the issues that have to be explored (e.g. government, entrepreneurial, international, etc.) (Figure 6). The method rests on *interviewing a group of experts* in the most rational and objective way possible (Godet, [3]). Experts' opinions are gathered through a *mailed inquiry*, thus allowing the elimination of subjectiveness due to the researcher's presence. Firstly, five to six basic hypotheses are formulated by planners**,** based on the good knowledge of the system at hand and its external environment as well as the results obtained by MICMAC and MACTOR modules. Each of the experts has then to determine the 'simple'[8] and 'conditional'[9] probabilities of these hypotheses.

Each expert has to revise his assessment several times until *consensus* (convergence of results) is reached. He/she also has to reveal the implicit coherence of his/her reasoning

[7] SMIC: Cross-Impacts Systems and Matrices.

[8] 'simple' probability (Pi): the probability of a hypothesis to be materialized in a predefined time horizon.

[9] 'conditional' probabilities (Pi/j) and (Pi/nonj): the probabilities of: a) a hypothesis i to be materialized, if another hypothesis j has been materialized before; and b) a hypothesis i to be materialized, if another hypothesis j has not been materialized before.

(Godet, [3]). The principle of the SMIC method is to *adjust experts' unprocessed opinions* in such a way so that *coherent final results*, i.e. results satisfying the normal constraints bounding probabilities, can be obtained.

Based on all possible combinations of hypotheses, *probable scenarios* of the region/problem at hand can be structured, while resting on the single and conditional probabilities of the hypotheses set, the SMIC method determines also the probabilities of all probable to happen scenarios, thus facilitating the selection of the most probable of them, which are also compatible to both the internal and the external environment of the study region/problem at hand.

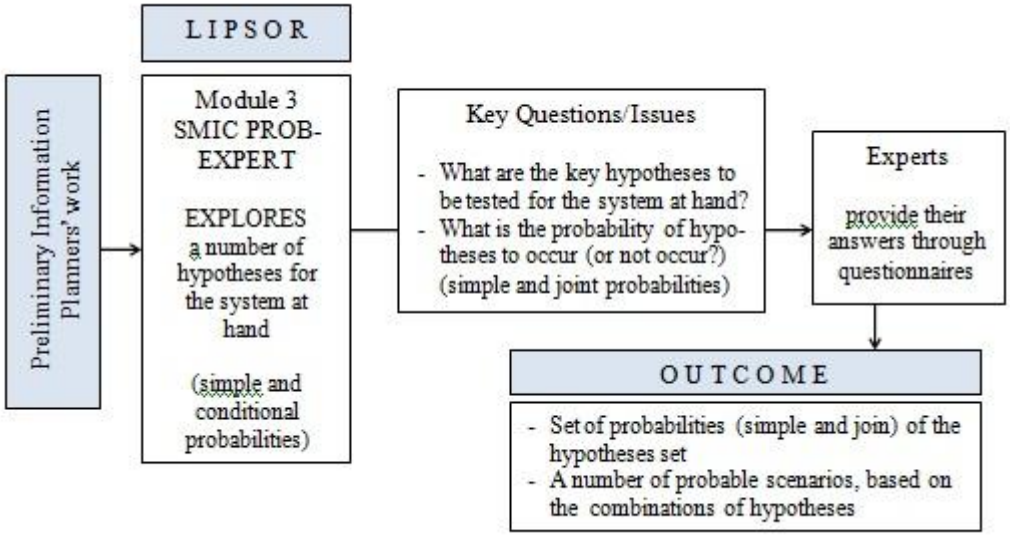

Figure 6: Participatory context aiming at feeding with information the SMIC PROB-EXPERT module

As depicted in Figure 6, the participatory process structured in case of the SMIC PROB-EXPERT module differs from those previously described, in the sense that experts-based information is gathered by mailed inquiry, excluding thus the organization of an experts' Focus Group for carrying out lively discussion on the issues raised. In this respect, there is no interaction among experts neither between planners and experts in this process. The outcome of the participatory process is a *set of probabilities* of the hypotheses considered, which can be further elaborated by planners in order to conclude with a number of probable scenarios, as produced by the SMIC PROB-EXPERT module.

The MORPHOL[10] Module

The *goal* of the MORPHOL module is to scan the field of *all possible future developments* (scenarios) (Godet, [3]). Scenarios, in this respect, are built on the basis of certain components (or dimensions or domains), which are considered as exhibiting a high degree of uncertainty in respect to their future developments, e.g. oil price or demographic developments. These domains can be further analyzed into certain variables, which are subject to future changes. For example regional structure, as a domain, can be analyzed in terms of economic structure and population (variables). For each of these variables, different configurations can be built, reflecting different future evolutions of them. Scenarios then are constructed as different combinations of such configurations. Usually, five to six basic variables are sufficient for scanning future uncertainty in terms of scenarios, for each of which two to four different configurations can be formulated (Godet, [3], [4]).

[10] MORPHOL Module – Basic Principle: the system or function under study is divided into subsystems or component parts, which are as independent as possible, while they represent the totality of the system at hand.

Previous steps of the LIPSOR methodological approach provide useful information, which supports the selection of different components to be used for the scenario building process.

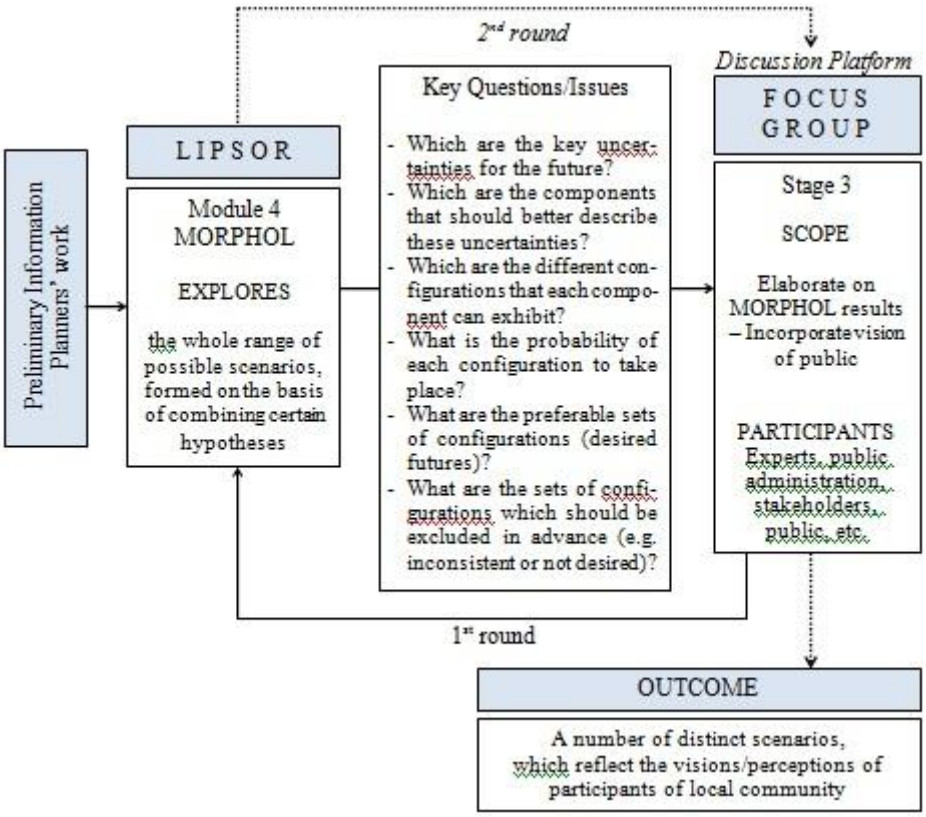

Figure 7: Participatory context aiming at feeding with information the MORPHOL module

Building scenarios in a participatory context by use of the MORPHOL module incorporates participatory work, undertaken in the Focus Groups participatory discussion platform (Figure 7). This work can follow two successive steps:

- *Step 1*: the organization of an *expert workshop* (specialists in different disciplines) as a productive forum for structured discussions on the problem at hand. The role of participants in such a workshop is to discuss first round MORPHOL results produced by planners, by contributing to:
  a) The *elaboration of variables*, selected by planners, to be used as building blocks of the future developments (scenarios), based on the LIPSOR analysis undertaken so far;
  b) The *elaboration of potential future developments* of these variables (different hypotheses set for each variable by planners), taking advantage of the expertise of each expert involved in the process;
  c) The elaboration of *exclusion criteria*, which form the basis for excluding scenarios that are not relevant or cohesive or even consistent to the peculiarities of the study system at hand.

The outcome of this participatory process is the further refinement of variables and hypotheses, which feed the MORPHOL module for a second run of analytical calculations. The results obtained are subject to a second run of group discussion in an expert workshop, for further elaboration in order to make all necessary adjustments and conclude with several *plausible scenarios* for further discussion in a public workshop. This elaboration may refer to e.g. removal of scenarios with very low probability, removal of scenarios which are very close to each other and their presentation in one scenario, etc.

- *Step 2*: refers to the organization of a *public workshop involving all parties of local society* - stakeholders, public, public institutions, local administration, experts, etc. – where plausible scenarios are presented and elaborated according to the views/opinions/visions of the participants involved. This Focus Groups participatory process aims at the further refinement of scenarios and their enrichment with the views of local society.

Scenarios produced at this stage enter into the next step for evaluation.

The MULTIPOL Module

MULTIPOL is the final stage of the LIPSOR scenario planning model. The scope of this step is to *evaluate scenarios* obtained by the previous module. The outcome of the evaluation process is not one prevailing scenario on the basis of certain evaluation criteria. On the contrary, the evaluation process aims at shedding light on a policy framework - policies and actions (measures) - which are more effective for reaching each different scenario context. In other words, evaluation aims at providing decision makers with the necessary input (relevance of policies/actions) in order to be prepared to cope with each different plausible future outcome.

The main issues entering the MULTIPOL evaluation process are:

- a number of distinct *scenarios*, as defined in the previous step (MORPHOL module);
- a *pool of policies* (paths), i.e. different strategic directions for reaching objectives set; and
- a *pool of actions* (policy measures), which can serve different policies.

The aim of the Focus Groups discussions at this stage is multifold. More specifically, these may serve one of the following goals (Figure 8):
a) *refinement* of policies and actions;
b) *setting priorities* in the evaluation process, which reflect local society's values and visions; and
c) assessing the *impacts* of each specific policy direction and policy measure.

The accomplishment of the above goals calls for the involvement of different groups of participants, ranging from experts to stakeholders, citizens, public agencies, pressure groups, etc.

The participatory process at this stage has as follows:

- At first, *policies and measures* can be set by the decision makers and planners running the whole planning exercise. These policies can be subject to an *experts' Focus Groups discussion*, in order to get feedback for further refinement.
- After the finalization of policies and measures, the issue of *setting priorities* comes to the fore. At a first round, priorities are set by decision makers/planners, based on the knowledge of the system at hand, but also on reactions of experts. Results obtained by a first run of the MULTIPOL module need then to be refined by the views/opinions of the local society. This step aims at informing the public, but also getting their reactions and views on priorities considered. These call for the organization of a second *Focus Groups discussion*, where participants are selected from a broader audience (stakeholders, public agencies, public, pressure groups, local administration, etc.), having the task to set priorities, i.e. attach *weights* to the evaluation criteria, policies and scenarios, which are reflecting the values and visions of the local community.
- Finally, the evaluation of actions, policies and scenarios in respect to certain evaluation criteria is carried out i.e. the assessment of the impacts of actions, policies and scenarios, which, together with the set of priorities, is expected to feed the MULTIPOL module with the information required to conclude to a policy framework that prioritizes policies and

- actions better serving each specific scenario context. This calls for an *experts' Focus Groups discussion*, involving thus participants with a certain expertise on the issues tackled.

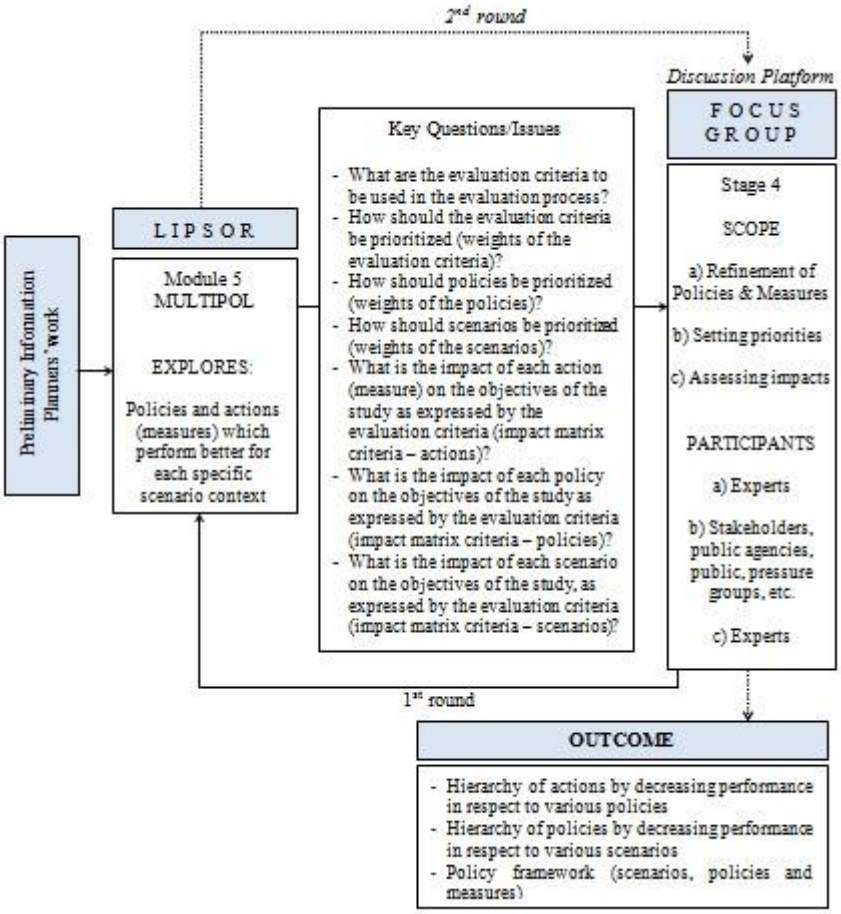

Figure 8: Participatory context aiming at feeding with information the MULTIPOL module

Experience Gained from the Application of the Proposed Framework

The above described methodological framework was used in the context of a scenario planning exercise of a specific region of the Greek territory, the Herakleion-Crete region. The aim of this exercise was the structuring of participatory scenarios for the integrated future agricultural development of this region (Stratigea and Giaoutzi, [13]). In the following, is summarized the experience gained from its application in the specific case study.

The *value added* by the application of the proposed methodological approach in the scenario planning process, as experienced in the Herakleion-Crete foresight exercise (Stratigea and Giaoutzi [13]), lies mainly on:

✓The establishment of a *discussion platform* within the Focus Groups part of the planning exercise (Figure 3), within which are properly elaborated all key questions/issues that need to be addressed in the scenario planning process, supported by the LIPSOR approach. The running of a number of Focus Groups sessions, involving each time a number of different types of participants, has led to fruitful discussions and interaction between planners and participants, which have:
- enriched the *planner's insight* on the system at hand and influence-dependence relationships among external and internal drivers and among actors that may affect its future states, guiding thus the scenario development process; and

- increased the *effectiveness* of the whole scenario planning exercise, as the information gathered in these discussions was integrated in the planning output, leading thus to future developments which are anchored to the specific local socio-economic environment.

✓The support provided to planners as to the *more effective structuring of Focus Groups discussions*, since the 'interface' created between the two tools has provided useful guidance on: the context of the Focus Groups participatory process; the key issues/questions that need to be addressed in the discussion; the preparation of an interview guide, structured on the basis of key issues identification; the right choice of the types of participants to be involved in each specific Focus Groups discussion, relying on the issues that need to be tackled in each specific LIPSOR module, etc. These have led to more effective and targeted Focus Groups discussions, and a more focused information gathering, thus strengthening the scenario planning process and enhancing the anchoring of the scenario planning results, produced by the LIPSOR model, in the local society and its visions.

✓The mobilization of a *'learning process'* among planners, decision makers, local stakeholders and citizens, which has further:
- increased *transparency* of the scenario building process;
- increased *knowledge share/exchange* among all parties involved in the foresight exercise, i.e. planners, decision makers, local stakeholders, local administration, citizens, etc.;
- supported *mutual understanding* of different views/perceptions of local participants involved;
- reduced *conflicts* among different interests in the local society, acting thus as a 'conflict resolution mechanism';
- created a *common ground* for discussion and brainstorming on the future development of the region in general and the agricultural sector in particular;
- enhanced *ownership* of participants in respect to the outcome of the whole planning effort;
- strengthened their *commitment* towards the final planning 'product' (scenarios, policies and actions);
- increased *awareness* of local society as to a range of issues that are crucial for the future development of the specific region; and
- prepared the ground for *successful implementation* of policy decisions.

✓The *setting of priorities* in various choice problems in the scenario design process, which largely reflect local expectations, values, goals, traditions etc. of the local society. As a result, the whole planning process was better adjusted to the specific local socio-economic environment.

In respect to the *difficulties* that have to be dealt with in applying the proposed methodological framework, as these were experienced in the specific case study, there could be mentioned:
- the *communication gaps* among participants of different background, which can place tension in the participatory process;
- the *conflicting interests* of the various groups of the local society, which can also place a certain tension in the whole process. In coping with this tension, the experience of the moderator and the very scholastic organization of the whole participatory process are stressed.
- the *time-consuming processes* involved for organizing the Focus Groups discussions in the sense of the organizational work involved, the preparation of the necessary material, the running of the process and the elaboration of qualitative results;
- the effort devoted in the *'translation'* of the qualitative information obtained from the Focus Groups sessions into the data input format of the LIPSOR model;
- the participants' *identification/recruitment* efforts, which have to cope with certain difficulties in both stages (identification and recruitment), where the latter have also to

- deal with a sort of unwillingness of all participants identified to take part in the participatory process;

Conclusions

In the present paper the focus is on the integration of an analytical scenario planning framework – the LIPSOR model – with a participatory tool – the Focus Group methodology. The scope of this effort is to establish 'bridges' that support the interaction of planners' work with the local society, thus increasing the quality of the planning outcome and meeting expectations and visions of the society. This framework will support the gathering of local experts' intelligence but also common knowledge of the local setting, which can strengthen the performance of foresight studies at the regional level.

The methodological approach presented, aims at creating the 'interface' between the two frameworks in support of planners to effectively address key issues that need to be dealt with in structuring participatory future development scenarios of a study system. Such an interface can place the *context of participation*, i.e. the identification of key questions/issues to be addressed in a participatory process, the guiding of the discussion serving specific demand for data input, the number and type of sessions required, the identification of the types of participants to be involved in the various sessions etc., through which a more effective *discussion platform* is created, allowing effective interaction among participants involved and serving the qualitative data demands for feeding the LIPSOR scenario planning tool.

The scope of the proposed methodological approach is to support planners' and decision makers' with tools that can both: deal with complexity and uncertainty; and enhance their understanding on views, aspirations and visions of local societies in the planning process for making policy decisions. The application of this framework implies the adoption of more pluralistic approaches in the planning process, which can lead to the increased transparency of the whole process as well as the production of results that are legitimate, robust, relevant and cohesive.

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