

# LEADER EU Program and Its Governance

## *A Fuzzy Assessment Model*

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**Abstract:** In regard to the LEADER program (European Union initiative for rural development), in the paper the authors propose a model for assessing the governance system of Local Action Groups (LAGs) in terms of structure, decision making processes and principles that ensure a clear and transparent activity thus creating significant value for the community. Governance, in particular, is a highly important theme when it evaluates the impacts of LEADER measures: if the quality of their governance is high, they could contribute to make the rural development process more efficient in each region of EU. The empirical literature on this subject is not well developed and the authors hope and expect that this new assessment model will produce important ideas for making governance of the LAGs more effective. It is based on a Fuzzy Expert System and here are presented results for Puglia (Italy) LAGs.

## 1 INTRODUCTION

In this paper the authors propose a fuzzy inference system (Siler and Buckley, 2005; Castillo and Alvarez, 2007; Leondes, 1998; Pedrycz and Gomide, 2007) to face the governance evaluation of an important European Union initiative for rural development called LEADER Program. LEADER (“Liaison Entre Actions de Développement de l’Économie Rurale”, meaning “Links between the rural economy and development actions”) is a local development method which allows local actors to advance an area by using its endogenous production potential. The LEADER approach forms one of the four axes of Rural Development Policy ([http://enrd.ec.europa.eu/enrd-static/leader/en/leader\\_en.html](http://enrd.ec.europa.eu/enrd-static/leader/en/leader_en.html)). LEADER projects are managed by Local Action Groups (LAGs). Each project must involve a relatively small rural area, with a population of between 10,000 and 100,000. LEADER has three objectives (Brinkerhoff, 2007; Brinkerhoff and Brinkerhoff, 2011; Kersbergen and Waarden, 2004; Koppell, 2010):

- to encourage experiments in rural development;
- to support cooperation between rural territories: several LAGs can share their resources;
- to network rural areas, by sharing experiences and expertise in the development of rural areas by cre-

ating databases, publications and other modes of information exchange.

Moreover, as some 14% of the population in the EUs predominantly rural regions suffers from employment rates of less than half the EU average and there are areas of low per-capita GDP, much can be done to help create a wider variety of better quality jobs and an improved level of overall local development, including through information and communication technologies (ICT). Every LAG is made up of public and private partners from the rural territory and must include representatives from different socio-economic sectors. They receive financial assistance to implement local development strategies, by awarding grants to local projects. They are selected by the managing authority of the Member State, which is either a national, regional or local, private or public body responsible for the management of the programme. In this paper we focalize our attention to the LAG Governance as it is a highly important theme when we want evaluate the impacts of LEADER measures. Many studies have highlighted quantitative outputs - such as diversification into activities, total volume of investments, a number of micro-enterprises which are supported or created, a number of projects which are financed, a number of beneficiaries which are supported, and a large number of jobs which are created but these indicators will provide a limited insight. For this reason, it

is important to supplement the quantitative indicators with qualitative indicators which provide information on the multi-dimensional character of LAGs governance. By combining the information it is possible to assess how the functioning of LAGs governance system contributes, directly or indirectly, to achieve the desired outcomes such as the development of a rural area. The evaluation of governance can involve an assessment of both the process (how it is functioning) and the outcomes (impacts on the rural area). The authors have tried to evaluate the LAG governance system in terms of structure, decision making processes and principles that ensure a clear and transparent activity and create significant value for the community. We have adopted a series of drivers that will contribute to the setting-up of a conceptual framework for the evaluation of LAG governance. It should be clear that good governance is an ideal which is difficult to achieve in its totality. A number of variables have a significant impact on what constitutes good governance. The structure of the conceptual framework is readable as a tree and starts with three key aspects that form the first level of branches. They are:

- the nature of members of the partnership (*actors*);
- the principles that guide the collaboration and the involvement of the partners in the decision making process (*decision making*);
- the accountability and transparency of LAG's activities to the stakeholders (*transparency*).

Within the wider analysis of governance there is a clear need to focus on the tree macro sectors we have fixed before. The *actors* concept is the fruit of an aggregation of the role and the interest shown by Public Administration and the corporate bodies of the firms involved. Looking at *decision making* we have to consider even the synergy between stakeholders, conflicts of interests and the independence. For *transparency* we have to look to internal monitoring and internal evaluation, transparency and accountability (Lowndes and Skelcher, 1998; Shaoul et al., 2012). For each of these aspects it is important to develop a set of indicators which are the key aspects of the second level. The indicators may help to uncover further aspects of good governance due to their fine detail. Each indicator allows the evaluators to determine how close they are to meeting the standards. The combination of these indicators can be used to provide an estimate of the governance of each Local Action Group. To reach this goal we propose a Fuzzy Expert System (FES) for several reasons. The problem to propose a LAG Governance evaluation is a Multi-Attribute Decision Making (MADM) problem. In fact there are several aspects we have to take into account to have an aggre-

gated evaluation. The several inputs, that aggregated offer the final value, hail from a questionnaire that a research group of University of Salento has submitted to members of several LAGs in Puglia, but this tool did not provide a satisfactory result. For this reason we propose this different method. The study we propose is a multidisciplinary problem. Persons and experts of different areas of expertise are necessary to focalize all the attributes that this type of evaluation involves. The classical method to elaborate a questionnaire is a simple statistical average, while the rules buildings of a FES need of a strong collaboration between mathematicians and researchers of LAG Governance. As last aspect, a FES may involve qualitative and quantitative information. In this way the experts, more easily, may present their judgements in a verbal form. We know that this type tool is born for engineering applications while only few results we know in economics, finance, management and social sciences fields, but we think that its potential is so wide to offer the possibility to expand its action areas (Anzilli et al., 2013; Lalla et al., 2008; Magni et al., 2001; Addabbo et al., 2007; Addabbo et al., 2009; Lalla et al., 2005; Magni et al., 2004; Forte et al., 2003). In Section 2 we present Leader and LAGs characteristics in Section 3 we define a LAG governance and what it is necessary for its evaluation. In Section 4 we present our model based on a Fuzzy Expert System. In Section 5 we present our results and in Section 6 the conclusions.

## 2 LEADER AND LAG

LEADER program acts as a catalyst in spreading a new form of territorial governance that can be seen as a system of interdependence and interaction among various stakeholders in order to meet the challenges in public action (OECD, 2013, p.241). In the LEADER model, local entities play a key role in rural development, reflecting the emphasis that the EUs policy has towards local potential development, programming, partnership and subsidiarity principles (Westholm et al., 1999; Bache, 2007; Commission, 2012; Jacoby et al., 2014; Batory and Cartwright, 2011). In line with these principles, a distinctive feature of LEADER is the local public-private partnership – called Local Action Group (LAG) – which is in charge of coordinating the design of the local development strategy as well as its implementation through the engagement of endogenous, material and intangible resources, to produce sustainable local development. Partnership processes play a central role in the emergent culture of governance which is now receiv-

ing a great theoretical attention. The adoption by the local authority of a model of policy making focused on public-private partnership is now at the base of the processes of growth and competitiveness of each region so much so that – as (Jones, 2000) argued – the partnership has become a key component for addressing substantive issues of governance at local levels. Local governance requires, therefore, the interaction of different players and involves civil society organizations and the private sector in partnership with government for the setting of priorities, the adoption of policies and the allocation of resources. A process of this type reflects the interdependence among the partners: this means that the partnership becomes necessary because no entity can achieve its goals without a significant degree of support from the others (Emerson et al., 2012). Through these networks, governments seek the co-operation of partners from the private sector and civil society in the pursuit of various objectives, from stimulating economic development to promoting social cohesion. Following this organizational system, the territory is administered on the basis of a bottom-up programming approach, which involves all entities of the territory and reconciles the interests of all stakeholders at different level (Stephenson, 2013).

The membership of the strategic LAG will reflect the aims of the LEADER Initiative regarding the involvement of community representatives. So it is necessary to have a balance of statutory, private and community representation. LAGs need to be balanced and representative of the area, genuinely locally based and to have an accepted structure and method of operation. It is therefore understandable that the local partnership will be more successful in this task, if the varied representation of local parties is well mirrored in the composition of the deliberating and decision-making bodies. A LAG should include both public and private partners, and should be well-balanced with representation from all existing local interest groups, drawn from the different socioeconomic sectors in the area. Article 62 of Regulation (EC) No. 1698/2005 stated that at the decision making level, the economic and social partners, as well as other representatives of the civil society, such as farmers, rural women, young people and their associations, must make up at least 50% of the local partnership. In the LEADER world, the 50% limit for public partners in the decision-making bodies of the LAG has brought forth various solutions. In fact, there is no general recipe and all depends on the specificities of the socioeconomic and governance context. Partnership within governance is not a static principle but it is a subtly changing concept. There is no general rule on the formal set up

of a LAG. It should be a juridical entity of its own right, but it can take on the form of a no-profit organization as well as that of a limited business company. This should be handled with a maximum of pragmatism and adaptation to local circumstances. In a partnership, an important role should be played by local and territorial entities – e.g. municipalities or regional government – although their presence, sometimes, is only formal and not substantive. Related to this aspect, a real problem is the limited competence skills that characterize the administration managers of the Public Administration (PA), especially regarding the level of knowledge of EU programs or the understanding of the LEADER approach. Closely related to these aspects is the degree of interest in joint and synergistic programming by the PA that, in many cases, can depend on the interest expressed by the politicians. There are some cases in which the private and no-profit members of a partnership declare to find difficulties in creating and maintaining a relationship with the PA and, in other cases, they point out the opportunity available in activating new forms of organizational coordination.

### **3 A MODEL FOR THE ASSESSMENT OF THE LAG GOVERNANCE**

Governance is a highly important theme when it evaluates the impacts of LEADER measures (Tafuro, 2013). Many studies have highlighted quantitative outputs - such as diversification into activities, total volume of investments, a number of micro-enterprises which are supported or created, a number of projects which are financed, a number of beneficiaries which are supported, and a large number of jobs which are created but these indicators will provide a limited insight. For this reason, it is important to supplement the quantitative indicators with qualitative indicators which provide information on the multi-dimensional character of LAG's governance. By combining the information it is possible to assess how the functioning of LAG's governance system contributes, directly or indirectly, to achieve the desired outcomes such as the development of a rural area. The evaluation of governance can involve an assessment of both the process (how it is functioning) and the outcomes (impacts on the rural area). The authors have tried to evaluate the governance system of LAG in terms of structure, decision making processes and principles that ensure a clear and transparent activity and create significant value for the community. We have adopted a series of

drivers that will contribute to the setting-up of a conceptual framework for the evaluation of governance of LAG. It should be clear that good governance is an ideal which is difficult to achieve in its totality. A number of variables have a significant impact on what constitutes good governance. The structure of the conceptual framework incorporates nested dimensions and their respective component. The examination of the governance process is based on three key aspects of the first level. They are:

- the nature of members of the partnership;
- the principles that guide the collaboration and the involvement of the partners in the decision-making process;
- the accountability and transparency of LAG's activities to the stakeholders.

Within the wider analysis of governance there is a clear need to focus on the whole partnership concept, to consider not only the issues of the formation, membership, and power relations among partners, but also the principles that guide collaboration and the degree of involvement of the partners in the decision-making process and the importance of reporting LAGs activities to the stakeholders. For each of these aspects it is important to develop a set of indicators which are the key aspects of the second level. The indicators may help to uncover further aspects of good governance due to their fine detail. Each indicator allows the evaluators to determine how close they are to meeting the standards. The combination of these indicators can be used to provide an estimate of the governance of each Local Action Group.

### **3.1 The Principles that Guide the Collaboration and Degree of Involvement of the Partners in Decision-making Process**

Since governance is the process by which decisions are implemented, an analysis of governance focuses on the principles (i.e. collaboration and degree of the involvement of the partners in decision-making process) that have been set to make and implement the decisions and on the procedures to guide the decision body in decision-making (i.e. how decisions have to be submitted for approval, modified, agreed upon; etc.). Governance establishes how the power is distributed among the members and the influence exerted by each member in the course of decision making. When we talk about participation, on the one hand, we mean the degree of involvement of each member in the decision making process, but on the

other hand, it is fundamental to consider the existence of a great synergy among the main stakeholders in the phases of design and implementation of the initiatives. By governance, in fact, we mean the selection of the activities that the LAGs partnership intends to realize, the role of each member in the implementation of needed projects, the control of the resources available, and how the output is distributed among the participants. Rural policies that follow the LEADER approach should be designed and implemented in a way best adapted to the needs of the communities they serve. One way to ensure this is the implementation of public consultation processes by which all local stakeholders are invited to take the lead or participate in the choices made and, above all, sustaining consultations and dialogues among the stakeholders. In this way the objectivity of the decision making process is guaranteed. At this point, we also have to reflect on the particular difficulties emerging from the presence of multiple members in the partnership. In this situation, heterogeneous interests and power of local stakeholder coexist: which is the source of complexity in the choice of objectives that the LAG should fix; and this is also a cause of conflicts of interest that sometimes may create delays in decision-making, as it often happens, for example in the case of the appointment of the Technical Management Group. Another feature of the decision-making process is its independence. The accountability and transparency of activities to stakeholders. Accountability is a key requirement of good governance, while transparency refers to the free flow of information on government processes, decisions, requirements and reports (Shaoul et al., 2012). It allows stakeholders to know what is happening and to participate meaningfully in various ways. All stakeholders, in fact, want to know how well a governance system supports the achievement of established goals and they also want to see how the results achieved compare with the effort and resources used in obtaining the objectives. For this reason it is important that some mechanisms of internal monitoring and self-evaluation exist in the LAG and that these mechanisms are used to ensure the monitoring of different aspects, such as the effectiveness and appropriateness of the work done by the Steering Committee, the effectiveness and efficiency of animation activities or, in general, the effectiveness of the LAG in producing the best possible results using the resources in the best possible way. To understand and monitor institutions and their decision-making processes it is important to have direct access to all relevant information. The transparency of information and of the decision making process - including procedures of consultation and participation - are tools used to promote

nonarbitrary and responsive decisions. Transparency is built on the free flow of information and is based on the existence and use of mechanisms to guarantee all the stakeholders an adequate access to information in terms of quantity, quality and completeness regarding the governing bodies, the management process and results, the allocation of tasks, the budgeting of the use of financial resources, to verify the achievement of goals and the accountability of each decision or result. A system of accountability is important not only to explain what has been done in the past, but it is fundamental to identify the necessary changes and corrective action to plan the future activities of LAG.

## 4 AN EMPIRICAL ANALYSIS ON PUGLIA REGION LAGS GOVERNANCE

The analysis produced in the following paragraph can be considered as the result of a pilot study on the governance of the LAGs operating in Puglia (Italy). The reasons that led us to choose Puglia's LAGs are essentially two: 1) Puglia is the Italian region that has the highest number of partnerships of this type. In fact, there are 25 and they are evenly distributed throughout the region. The number of LAGs in Puglia is by far the highest compared to other regions and, in percentage terms, they represent 12.76% of the total of Italian LAGs (no. 196); 2) Puglia, more than any other region in Italy, has devoted a considerable amount of community resources – nearly 300 million euro – to a wide assortment of interventions and beneficiaries with the aim to facilitate the process of endogenous development that will make the economy of the rural areas more dynamic and productive.

### 4.1 Methodology Approach

Our aim is to evaluate the LAG's governance in Puglia region. This problem may be read as a multiattribute decision making problem (MADM) In fact it is the aggregation of several macroindicators as structure, decision making processes and principles that ensure a clear and transparent activity thus creating significant value for the community. As every MADM problem there are three main frameworks in which we may work: the multiattribute value theory (MAVT), outranking approaches and interactive methods. We present a method of the first type and in particular a decision support system. The advantage of this proposal is its visibility, the comparability of different scenarios, the explicit choices of decision makers

and an easy way to rank different scenarios. Usually its aspect is a decision tree that is built in a “bottom up” procedure. The higher point is the output. Then we have a first level of description by several macro-indicators that experts have identified and so on till the last leaves of the tree that are the initial inputs. In this case we start in a different way as we have at our disposal the replays of a survey submitted to members of several LAGs in Puglia by a group of researcher of University of Salento. In this situation the initial inputs are offered by the questions present in the survey. The further aggregations are obtained by the necessity to give a meaning to the aggregate variables (see Table 1). The instrument we propose is a Fuzzy Expert System (FES) (Bandemer and Gottwald, 1995; Bojadziev and Bojadziev, 2007; Kasabov, 1996; Piegat, 2001; Siler and Buckley, 2005; Castillo and Alvarez, 2007; Leondes, 1998; Pedrycz and Gomide, 2007). FES models are cognitive models that, replicating the human way of learning and thinking, allow to formalize qualitative concepts. It uses blocks of rules to translate the experts judgments that, usually, are made by numerical weights. The experts in charge of codifying the model's operating rules make choices that are visible and manifest in each step for the construction of the model. It contains an inferential engine to reach a final evaluation. We have proposed this instrument as we have not sufficient data to use data mining methods, while we have experts of the governance sector disposable to help our work. The survey questionnaires are given in a linguistic way and the use of fuzzy logic has seemed the more fitting.

### 4.2 Construction of the System

The implementation of the fuzzy expert system in this case has been divided into nine stages (Von Altrock, 1996):

- 1) Analysis of available data
- 2) Initial interview with experts to define the inputs and factors for their aggregation
- 3) Construction of the decision tree
- 4) Subsequent talks to define the range and the blocks of rules
- 5) Technical choices: aggregators and defuzzifying
- 6) Selecting complete data from the survey replies and first output
- 7) Comparison with reference cases and calibration
- 8) Calculating new output: if there is no validation of the result by the experts it returns to the previous step
- 9) Analysis of the output.

Input variables	
AchievObjectiv	Achievement of the objectives
ActorsObject	Multiplicity of actors and complexity of objectives
Autonomy	Autonomy in Decision
BoardofDirect	Board of Directors
Delays	Delays in Appoint Technical Management
EffAnimTools	Effectiveness of Animation tools
EffBoard	Effectiveness of Board
EffOperation	Operational Efficiency of the LAGs
EntrustTasks	Entrust of Tasks
EUPrograms	Level of knowledge of EU programs
ExtOrientat	External orientation
FinanResourc	Budgeting the Use of Financial Resources
FuturePlann	Use for future planning
Importance	Degree of importance attached to accountability's systems
LAGApproach	LAGs' approach
NewFormCoo	Need to activate new forms of organisational coordination
Objective	Objective
PartnersMeet	Partner's Meeting
PartProjePlan	Degree of participation in project planning
Planning	Planning
PoliticalOrient	Political orientation in PA's participation
ProblemPA	Problem in partnership with PA
PromPlanSt	Promotion and planning stage
PublicCons	Public Consultation Process
SynergProgr	Synergic program
WeightMemb	Weight of member
Intermediate variables	
Accountab	System of Accountability
Actors	Members of the LAG
ConflictInt	Conflict of interest
CorporateBodies	Decision making bodies
DecMakProcess	Decision Making Process
Effectiveness	Internal Monitoring and Self-Evaluation
Independence	Independence
IntInfFlows	Internal information flows
PA	Relationship with PA
PAsRole	Role and interest shown by the PA
ProfCompet	Skills
SynergActors	Synergy Between Stakeholders
Transp_Accou	Transparency and Accountability
Transparency	Transparency
Output	
Governance	Final evaluation

Figure 1: Input's database.

Aggregating the 26 selected inputs in the corresponding variables (see Figure 1), the model assumes the configuration of a tree: the 26 inputs find aggregation in 14 intermediate outputs which in turn are the inputs of further aggregates up to the final output. This output is the evaluation of the governance of the LAGs, expressed as a ranking of the LAGs and analyzed according to the factors Actors, Decision making process and Transparency. These in turn are the results of the subsequent factors.

The construction of the model is then modular. The evaluation is developed in successive steps (analogous to the decision-making process of individuals) along the branches of the tree until you get to the trunk: the input variables through intermediate output variables leads to the final output of the model. Figure 2 translates in a detailed way Table 1 using the software fuzzyTECH (Von Altrock, 1996). The experts that have contribute to build the system have found the system result coherent with their previous opinion. No other data are available and so we have not had the possibility to test the system more times.

### 4.3 FES Mathematical Structure

In a fuzzy rule based system, the experts represent their knowledge by defining the rules to describe the characteristics of the risk assessment for each factor. The input variables are processed by these rules to generate an appropriate output. A fuzzy rule-based system can be formalized as follows.

Suppose we have  $p$  inputs  $x_1, \dots, x_p$  and one output  $y$ , with  $x_i \in X_i$  and  $y \in Y$ . The fuzzy representation of input variable  $x_i$  is performed by associating to it a number  $k(i)$  of linguistic labels, that is  $k(i)$  fuzzy sets, we say  $A_i^1, \dots, A_i^{k(i)}$ , defined by the membership functions  $\mu_{A_i^j} : X_i \rightarrow [0, 1]$  for  $j = 1, \dots, k(i)$ . Similarly, the output variable  $y$  is described by  $k(y)$  fuzzy sets  $B^1, \dots, B^{k(y)}$  defined by the membership functions  $\mu_{B^j} : Y \rightarrow [0, 1]$ , with  $j = 1, \dots, k(y)$ . The rule-block is characterized by  $M$  rules where the  $m$ -th rule, with  $m = 1, \dots, M$ , has the form

$$R_m : \text{IF } x_1 \text{ is } A_{1m} \text{ and } \dots \text{ and } x_p \text{ is } A_{pm} \text{ THEN } y \text{ is } B_m.$$

Here the fuzzy set  $A_{im} \in \{A_i^1, \dots, A_i^{k(i)}\}$  is the linguistic label associated with  $i$ -th antecedent in the  $m$ -th rule and  $B_m \in \{B^1, \dots, B^{k(y)}\}$  is the linguistic label associated with the output variable in the  $m$ -th rule. We assume that Mamdani implications (MIN) are used, the fuzzy intersection operation (AND) corresponds to the PROD operator, the fuzzy union (OR) corresponds to the MAX operator, all rules which have the same term in the rule conclusion are aggregated using the BOUNDED SUM. Using the *technique of activation degree*, given the crisp input values  $x' = (x'_1, \dots, x'_p) \in X_1 \times \dots \times X_p$ , for each rule  $m = 1, \dots, M$  we compute the firing level (or degree of activation)  $\gamma_m(x')$  as

$$\gamma_m(x') = \prod_{i=1, \dots, p} \mu_{A_{im}}(x'_i).$$

For each  $j = 1, \dots, k(y)$  we consider the set  $M^j \subset \{1, \dots, M\}$  of all rules which have the term  $B^j$  in the rule conclusion. Thus  $\{1, \dots, M\} = M^1 \cup \dots \cup M^{k(y)}$  and  $M^j \cap M^\ell = \emptyset$  for  $j \neq \ell$ . We define  $\gamma^j = \gamma^j(x')$  as the BOUNDED SUM (or Łukasiewicz  $t$ -conorm) of all rules which have the term  $B^j$  in the rule conclusion, that is

$$\gamma^j = \min\{1, \sum_{m \in M^j} \gamma_m(x')\}.$$

Then we define  $B_*^j$  by

$$\mu_{B_*^j}(y) = \min\{\gamma^j, \mu_{B^j}(y)\}, \quad y \in Y.$$

The final output  $B^*$  is obtained as  $B^* = \bigcup_{j=1}^{k(y)} B_*^j$ , that is

$$\mu_{B^*}(y) = \max_{j=1, \dots, k(y)} \mu_{B_*^j}(y), \quad y \in Y.$$

Table 1: The factors for the evaluation of governance - Output of the Model.

3rd level factors	2nd level factors	1st level factors	Output
	Corporate bodies	Actors	Governance of LAGs
Relationships with Public Administration Professional competences	Role and interest shown by Public Administration		
	Synergy between Stakeholders	Decision making	
	Conflicts of interests		
	Independence	Transparency	
	Internal Monitoring and Self Evaluation		
Internal information flows Accountability's system	Transparency and accountability		

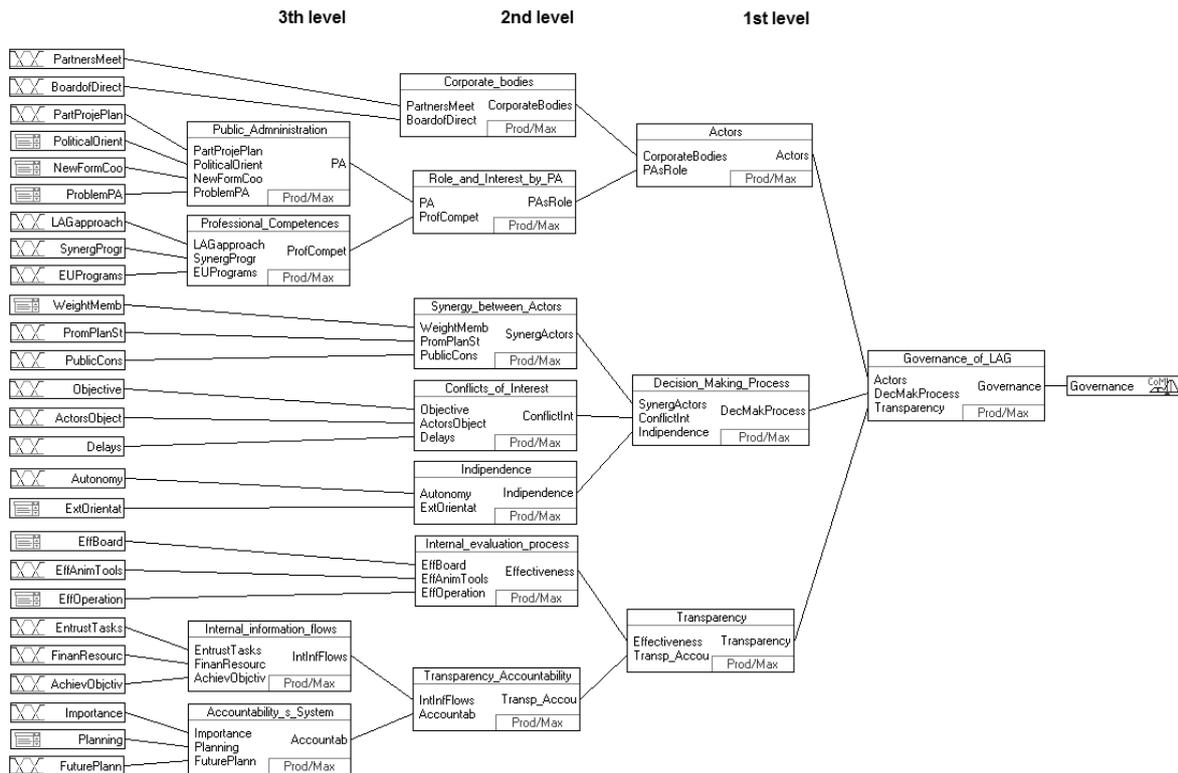


Figure 2: Layout.

To translate the fuzzy output into a crisp value, we employ as defuzzification method the Center of Maximum (CoM).

#### 4.4 Variables and Blocks Of Rules

We now present the description of an input variable and a rule block present in the previous layout. The variable we choose as example is “PartnersMeet”, i.e. % of private actors within the Assembly, shown in Figure 3. Its granulation is made by four terms, “insufficient”, “low”, “medium”, “high”, that translate the experts opinions. Even the ranges of the four granules is fixed by experts.



Figure 3: Membership functions of “PartnersMeet”.

Following LEADER aim that requires a high percentage of private enterprise either in “PartnersMeet” or in “BoardofDirect”, we have built the rule-block in which “PartnersMeet” and “BoardofDirect” enter

LAG's name	Intermediate variables													Output	
	3th level				2nd level					1st level					
	Accountab	ProfCompet	IntInfFlows	PA	ConflictInt	Indipendence	CorporateBodies	PAsRole	SynergActors	Transp_Account	Effectiveness	Actors	DecMakProcess		Transparency
Terra dei Trulli e di Barsento	100.0	100.0	100.0	83.3	66.7	60.0	99.6	100.0	100.0	100.0	100.0	100.0	75.0	100.0	90.000
Terra dei Messapi	100.0	95.0	100.0	66.7	66.7	20.0	99.2	82.1	91.7	100.0	100.0	96.4	62.5	100.0	80.000
Terra d'Arneo	50.0	87.5	100.0	100.0	58.3	60.0	81.6	91.1	100.0	75.0	100.0	91.3	75.0	85.7	79.368
Daunia Rurale	100.0	80.0	100.0	75.0	66.7	60.0	15.5	78.6	91.7	100.0	100.0	47.1	75.0	100.0	79.234
Fior d'Olivi	100.0	40.0	100.0	75.0	58.3	60.0	82.3	50.0	91.7	100.0	100.0	70.2	71.9	100.0	78.890
Meridaunia	50.0	95.0	100.0	66.7	58.3	100.0	14.8	82.1	91.7	75.0	100.0	46.8	84.4	85.7	77.500
Valle della Cupa	100.0	50.0	95.0	100.0	50.0	20.0	100.0	64.3	91.7	100.0	100.0	87.5	56.3	100.0	75.000
Ponte Lama	60.0	50.0	87.5	75.0	58.3	60.0	72.5	57.1	91.7	75.0	80.0	67.5	71.9	71.4	68.676
Terre di Murgia	100.0	87.5	87.5	66.7	50.0	20.0	35.4	76.8	91.7	97.9	100.0	56.1	56.3	98.2	68.670
Colline joniche	60.0	60.0	87.5	75.0	33.3	90.0	0.0	64.3	66.7	76.0	100.0	31.2	68.7	87.1	65.858
Serre Salentine	100.0	100.0	100.0	100.0	66.7	40.0	25.7	100.0	58.3	100.0	70.0	66.0	56.3	78.6	64.104
Piana del Tavoliere	60.0	50.0	80.0	33.3	41.7	40.0	100.0	50.0	79.2	71.9	70.0	81.3	54.7	67.0	61.600
Agenzia di S. T. Isola Salento	60.0	40.0	100.0	66.7	58.3	20.0	0.0	42.9	83.3	83.3	100.0	12.5	56.3	89.3	61.250
Capo di S.Maria di Leuca	80.0	80.0	0.0	83.3	66.7	60.0	68.8	85.7	83.3	33.3	30.0	81.4	75.0	28.6	60.000
Terre del primitivo	80.0	50.0	90.0	41.7	33.3	40.0	31.7	50.0	91.7	91.7	70.0	38.5	56.3	75.0	57.942
Daunofantino	50.0	60.0	100.0	75.0	66.7	40.0	28.3	64.3	91.7	75.0	30.0	48.7	68.7	42.9	55.148
Alto Salento	80.0	90.0	60.0	50.0	41.7	40.0	16.6	78.6	66.7	66.7	80.0	47.6	50.0	71.4	54.518
Sud-Est Barese	60.0	30.0	100.0	91.7	33.3	40.0	17.6	50.0	66.7	83.3	60.0	30.6	46.9	71.4	51.320
Terra d'Otranto	60.0	80.0	87.5	100.0	58.3	20.0	0.0	85.7	33.3	76.0	100.0	40.6	37.5	87.1	51.248
Conca Barese	50.0	30.0	80.0	0.0	33.3	20.0	100.0	21.4	66.7	66.7	60.0	62.5	37.5	58.9	48.906

Figure 4: Governance's quality ranking of the LAGs.

Table 2: Rules of the Rule Block "Corporate bodies".

IF		THEN
PartnersMeet	BoardofDirect	CorporateBodies
insufficient		very_low
	insufficient	very_low
low	low	low
low	medium	medium_low
low	high	medium_high
medium	low	medium_low
medium	medium	medium_high
medium	high	high
high	low	medium_high
high	medium	high
high	high	very_high

producing an evaluation about the "CorporateBodies" reliability. In fact we may observe that the first rule says that if the percentage of private enterprise is "insufficient" whatever the assessment of "BoardofDirect" is, the evaluation about "CorporateBodies" is very low. Similarly happens for the second rule. The linguistic attributes of the "CorporateBodies" are described by six terms in an increasing way, from the "very\_low" till "very\_high".

## 5 RESULTS

This paper applies fuzzy logic tools to creating a governance rating for the different LAGs present in a region. This ranking is present in the "output" column

of the table shown in Figure 4 in which the intermediate values divided in three levels are also showed. The usefulness of this method is demonstrated by the ease by which it highlights the formation of the output and by the way in which it allows to identify, very quickly, the critical issues and strengths that characterize the governance of the single LAG. In this way, the LAGs will not only be benefited from knowing the rate of their governance, but they can implement a program for increasing variable where the rating is low.

For example, although two LAGs - Terra d'Arneo e Daunia Rurale - have the same level of output relative to the intermediate variable "decision-making process" (DecMakProcess), a less detailed reporting of the LAG (Terra d'Arneo) was more than offset by the best composition of the shareholding structure (CorporateBodies: 81.6 vs 15.5) and by the interest shown by the PA in the LAG's activities (PAsRole: 91.1 vs. 78.6). These values help to raise the level of the variable "Actors" (91.3 vs. 47.1) and allow to place the LAG "Daunia Rurale" in the fourth position preceded by the LAG "Terra d'Arneo". This means that "Daunia Rurale" has to improve its shareholding structure, and that Public Entities must cooperate with more interest in the decision making process of the LAG.

## 6 CONCLUSION

To date, there is still no framework for the assessment of local governance, and the priority is to endorse a combination of normative principles that will guide it. Governance concerns the structures, processes, rules and traditions through which decision-making power that determines actions is exercised, and so accountability is manifested and accomplished. Due to partnerships' dynamic, changing and evolutionary nature, governance of the LAGs evolves over the partnership's lifecycle. For this reason it is necessary to be sensitive to the diversity of existing partnerships and to their changing, dynamic nature, especially when developing appropriate processes and mechanisms. A framework is proposed for the assessment of the governance of such partnerships even if effective governance evaluation is a difficult goal to achieve. This occurs because there are many key aspects that have to be considered: composition of the LAG's bodies, participation of the different entities, the decision-making process, legitimacy, transparency, accountability, . . . For this reason, the framework identifies a relatively small number of dimensions (First Level Key Aspects) within which components (Second Level Key Aspects) can work together in a positive interactive way which leads to good results. The results from this survey suggest a few areas where policy makers and researchers can improve on. The following are some recommendations to consider:

- (i) the framework offers a conceptual map by which to examine the various dimensions, components and element of good governance. It is important to pay attention to the elements within the decision making process and, in particular, to the shared motivation for joint action that can stimulate a shared perspective of the strategic directions to take;
- (ii) the model shows that good governance is based on the reliability of the LAG's decision-making processes that can stem from the synergies among different members that adhere to the partnership although they have different interests;
- (iii) transparency and accountability are considered important though many LAGs have not implemented a valid system to acquire information to understand not only what has been done in the past. These activities are fundamental in identifying the necessary changes and corrective action needed to plan the future of the LAGs.

All these informations are obtained even thanks to the instrument we propose. The effectiveness of the FES

lies in some aspects like the multiattribute, multidisciplinary and fuzzy aspects of the problem. As we have said, structured ways to evaluate the governance of these EU projects at local level are not present. This may be one starting point to due LAG institution of a common way to be evaluated. This evaluation, we think, should be necessary even in the direction to supply other resources, in the future, using the merit as decision making criteria.

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