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# System Dynamics and Innovation in Food Networks 2012

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#### The Metadistrict as the Territorial Strategy for Revitalizing the Rural Economy

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#### **Abstract**

The purpose of this proposal is to explore a new concept of 'Metadistrict' to be applied in a region of Southern Italy – Apulia - in order to analyze the impact that the activation of a special network between different sector chains and several integrated projects may have for revitalizing the local economy. The Metadistrict model stems from the LAGs and the IPFs frameworks and it may represent a crucial driver of the rural economy through the realization of sector circuits connected to the concept of multi-functionality in agriculture, that is Network of the Territorial Multi-functionality (NTM). It was formalized through a simplified model based on Matrix Organization. The adoption of the Metadistrict perspective as the territorial strategy may play a key role to revitalize the primary sector through the increase of economic and productive opportunities due to the implementation of a common and shared strategy and organization.

**Key words:** Network; Local Action Group; Food Chain.

#### 1 Introduction

The serious national and international economic problems, gathered with the ongoing crisis of the primary sector have recently highlighted the importance of the linkages among firms and sectors (Gellynck et Al., 2010; Antonelli, 2010), in order to segment the problems by sharing a common strategy. For this reason, our paper starts from the creation and analysis of a new concept of 'Metadistrict', by taking into account the Agro District, the Local Action Group, and the Integrated Projects of Food Chain (organizational and territorial frameworks adopted by the Rural Development Programs - RDP 2007-2013 - plan to earmark for IPFs, a high percentage of available financial resources). The Metadistrict may actively represent a crucial driver of the economy and can contribute to the improvement of the quality of life in Apulia, especially through the shared action of different stakeholders aimed at discovering and stimulating the innovative multi-functional activities that could exploit the territory. The present paper is divided as follows: paragraph 2 is a literature review; paragraph 3, after having described and explored the law and economic essence of the Districts, the IPFs and the LAGs, it analyses and identifies those ones related to Apulia Region; paragraph 4, outlines the concept of Metadistrict as territorial strategy based on the idea of Territorial Multi-functional Network (TMN). Finally, paragraph 5 draws the conclusions and proposes some policy indications.

#### 2 A literature review

The firm is not a separate unit but can be conceived, studied and analyzed only as a piece of a puzzle that configures the socio-economic and geographical context and, above all, the network of relationships that links it primarily to territory and to its stakeholders, and *in secundis* to customers, suppliers (and subcontractors), external consultants, and connected and associated businesses, at different levels of competition.

In fact, the EU and international institutions (like the OECD, the World Bank, UNESCO) perspective is to integrate the relationships among firms with the context in which these relationships are formed and developed, thus highlighting the cooperation between different social and political parties and the relevance of local partnerships. The models based on networks of organizations hinges primarily on cultural, social, relational capital, and *in secundis*, on a specific involvement of local public institutions<sup>1</sup>. The phenomena of relocation of production, internationalization of enterprises, transnational business networks, have led to interpret the "space" not as a source of cost, but as a development factor, in a perspective of hierarchy and networks between areas. The EU policies in agriculture and rural regions are, in fact, experiencing a "re-localization", with the passage of more and more powers to local institutions from EU institutions, devolving to the Member States and the institutions a greater local autonomy in setting objectives, managing and financing the operations, implementing specific interventions.

The cooperation and commitment of all relevant stakeholders from the early stages of preparation, implementation and support from both central and local government levels are fundamental for the achievement of the Rural Agribusiness Development (RAD) programmes objectives (Irianto, 2011), that is as a participatory mother/baby approach through a regional network of dialogue and exchange platforms among all the stakeholders along the value chain (Nkapnang Djossi et Al., 2010). The rural entrepreneurship depends in special way on the building of strong partnerships that foster complementarities, setting specific targets that empower all rural stakeholders (Traore et Al., 2011) and structuring a better link between the formal and the informal systems (Okry et Al., 2011); this link would help to formulate a chain strategy and organization (Baars et Al. 2010). In this sense, the establishment of Networks of Clusters of Innovation (NCOI) are partnerships and agreements between individuals and institutions that belong to geographically distant Clusters of Innovation (COI). The driving force of these cluster networks is to connect mobile resources, individuals, universities, research centers, associations, organizations that are globally oriented. The basic elements of NCOI are individuals, firms and relations between them supported by formal and informal networks of contacts that often start as a professional and unofficial meeting of affinity groups and then sometimes evolving in major trade associations (Engel et al., 2009).

The network structure reveals how architecture among firms evolves at the macro level but requires a micro-organizational analysis (Gavetti 2005). Finally, a good integrated chain management practice can be a strategy to achieve higher levels of performance (there are several hybrid forms of economic organization) based on a business-to-business relationship which evolves among supply chain stakeholders when attempting to link farmers to markets (Cadilhon et Al., 2009). An example is the Vegetable Science International Network (VEGINET) established by the General Assembly of the Conference ICV-2002 whose main goal is to strengthen partnership and inter-institutional cooperation among the member organizations of the sector by disseminating information among the member organizations (Nath, 2007).

<sup>&</sup>lt;sup>1</sup> For example, firms that link their networks of suppliers, franchisees and their retail stores are an instructive example of how a dual network integrates two sub-asymmetric networks. Such networks have internal mechanisms and competencies that require both a broad spectrum of communication skills with external parties and a strong coordination capacity within the organization that orchestrates and manages the two networks (Lorenzoni, 2010).

#### 3 The IPFs, the LAGs and the districts

#### The IPF

The chain integrated project represents a set of coordinated and organic operations related to several measures of the Rural Development Programme (RDP); an aggregation of individuals operating in different segments of a given food supply chain access the RDP through the presentation of an application proposed by an individual leader. The initiative should provide, therefore, for a plurality of participants linked by constraints of contractual nature that highlight the obligations and mutual responsibilities in the accomplishment of the whole project, in order to fulfill certain goals.

The implementation of chain integrated project can make a decisive contribution to the improvement of competitiveness of important Italian agro-food sectors. The range of the Integrated Supply Chain projects regards the agriculture, forestry and agro-industrial sectors to be geographically localized on the entire region. The Regional Call for submission of IPFs was founded to pursue, through the Integrated Supply Chain Planning, a series of specific objectives.

In particular, the call aims at promoting and reinforcing the integrated approach and the aggregation and cooperation among the different parties of the chain (from production to marketing), in order to promote and strengthen the partnership praxis, to increase the value added of the sector and the competitiveness of the enterprises involved, to promote the typical products of the territory thus helping to create social capital (Alfano et Al., 2008; Zumpano, 2007; Deidda, 2003).

#### The Districts

The word "districts" in legal lexicon was introduced by the Italian law 317 of October 5, 1991, on "Measures for innovation and development of small businesses" that dictated a formal definition of "industrial districts" and provided a comprehensive framework with which the regions were assegnined the task of identifying the district areas, and Consortia of industrial development, government-owned businesses, and providing them with real business services. With the delegated law in agriculture, no. 57/01, the Italian legislator assigned the task of promoting, through the method of consultation, support and social and economic development of agriculture, aquaculture, fisheries and agri-food systems according to the production vocations of territory, identifying the conditions for the establishment of agro-industrial, rural and fishery quality and ensuring the protection of natural resources, biodiversity, cultural heritage and the agricultural landscape and forestry (Article 7, the law cited above.). Agriculture and land, in the law of orientation, have to find a shared territorial dimension, in the respects of productive vocations, and taking into account all aspects in their natural and human perspectives of sustainability (Rook Basile, 2001; Sassi, 2008). With the last Rural Development Regulation, no 1698 of 2005, the focus on multiple subjects of programming (economic and social partners and any other appropriate social organism), identified on the basis of the criteria of complementarities and partnerships, became the key component. Other than pursuing a relationship between the CAP and the rural development enhancing diversity and autonomy, the Regulation requires both "complementarity, consistency and compliance" (Article 5 reg.1698/2005) and responsibilities.

#### The LAGs

Within EU Leader + programme, pursuant to art. 62 of EC Regulation No 1698/2005, partnered local development approach shall be implemented by Local Action Groups (LAGs), and therefore, subjects IV Axis Actuators are represented by the LAGs. Under Art. 61 of Regulation (EC) 1698/2005, the Leader approach is characterized especially by the concept of multi-sector strategy, based on the interaction between parties and projects of different sectors of the local economy and on the implementation of innovative approaches, projects cooperation, networking of local partnerships. Consequently, these elements are the general requirements for programming tools (LAG-PSL). The LAGs, therefore, are the main parties of a bottom-up planning, they have the task of working out the development strategy, and they are responsible for its accomplishment. The LAGs are composed of both private and public partners, thus gathering a balanced and representative set of the different socioeconomic local stakeholders. Each LAG is, in short, a programming tool representing the various socio-economic sectors that brings together all potential public and private parties of the development process (such as trade unions, business associations, businesses, municipalities, etc..) in the definition of a planned policy.

#### 3.1 The case of Apulia Region

The principle of territorialisation dictated by the EU for the implementation of the Regional Rural Development Programmes (RDP) 2007/2013 in Apulia has generated, in the recent years, a programmatic fragmentation with reference only to the agri-food sector and rural areas, resulting in 2 industrial Districts, 25 LAGs and 7 food chains connected to 45 Integrated Projects of Food Chain approved and funded by the Apulia Region in 2011.

The "Federiciane Lands" Agro-Food Quality District, established in 2009, includes more than 767 farms (producing mainly tomatoes, olive oil and wine, fruit and vegetables, and wheat) and agricultural products processing plants (eg. vegetable canning, vegetable packaging, milling and dairy industry) in the provinces of Bari, Barletta-Andria-Trani (BAT) and Foggia.

The Ionian-Salento Agro-Food Quality District includes 196 companies in the provinces of Taranto, Brindisi and Lecce. Development programs in both districts aimed primarily at improving competitiveness, internationalization and efficiency of agriculture and food industry through: 1) valorization of production with quality and denomination of origin and quality labels and certifications, such as PDO, PGI and "Organic Farming", 2) business consulting services, 3) strengthening of the logistics, 4) improvement of credit access, 5) modernization and rationalization, 6) promotion of research and innovation, 7) training and implementation of district governance through new relationships among development stakeholders<sup>2</sup>.

In this sense, the Agro-Food Apulia districts develop such networks of enterprises linked together per chains or productive sectors. Among the institutions stand out, especially universities and research centers (as well as organizations, consortia, associations and labor unions) that, working with the firms, produce innovation thus raising the competitiveness of the productive Apulian framework<sup>3</sup>. It is apparent, however, in the two districts, the

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<sup>&</sup>lt;sup>2</sup> Among the most interesting targets is also the enrichment of the logic of the district with the enhancement of cultural, agritourism and enogastronomic resources on the existing land.

<sup>&</sup>lt;sup>3</sup> To this end, the two districts are joined by the DARE (Food Regional District), the interface for the technologic transfer of Puglia research system towards the agri-food system, consisting of 60 public and private stakeholders among the most representative of the regional research as well as companies operating in agriculture and food processing, manufacturing, services and financial sectors.

absence, of the ability to structure and implement the identified program guidelines and to allow(for example through the establishment of regional service centers), the fulfillment of a wide range of business services in order to foster firm competitiveness, as well as appropriate policies for local marketing. Most of this lack of intervention can be addressed to the limitations of regional legislation on the subject (LR 23/2007), although political and structural components should be deepened to reach a complete explanation. In 2009, following submission of the Local Development Plans (LDP) calls, (as provided by the Leader Axis of the RDP 2007/2013), the Apulia Regional Government has recognized 25 LAGs whose actions involve almost entirely, at least for inland areas, the regional territory (table 1).

**Table 1.** The Local Action Group recognized in Apulia in 2011.

NAME	HEAD OFFICE	PROVINCE	MUNICIP.	POPULATION	SQ.KM.
LAG Alto Salento	Ostuni	Brindisi	7	142.278	715,00
LAG Capo Santa Maria di Leuca	Tricase	Lecce	18	112.614	433,90
LAG Colline Joniche	Grottaglie	Taranto	11	110.657	415,00
LAG Conca Barese	Bitetto	Bari	9	101.685	478,23
LAG Daunia Rurale	San Severo	Foggia	8	107.544	1.220,01
LAG Daunofantino	Manfredonia	Foggia	4	89.724	81,49
LAG Fior d'Olivi	Terlizzi	Bari	3	104.327	284,83
LAG Gargano	M. Sant'Angelo	Foggia	13	89.724	170,56
LAG Isola Salento	Vernole	Lecce	23	115.019	443,68
LAG Le città di Castel Monte	Andria	BAT	2	145.184	575,55
LAG Luoghi del Mito	Mottola	Taranto	6	126.336	1.035,87
LAG Meridaunia	Bovino	Foggia	30	98.000	2.274,73
LAG Murgia Più	Spinazzola	BAT	6	119.404	1.234,02
LAG Piana del Tavoliere	Cerignola	Foggia	2	63.124	627,36
LAG Ponte Lama	Bisceglie	BAT	2	104.857	170,56
LAG Serre Salentine	Racale	Lecce	14	89.724	81,49
LAG Sud Est Barese	Mola di Bari	Bari	6	132.962	480,41
LAG Terra d'Arneo	Veglie	Lecce	9	126.903	558,60
LAG Terra dei Messapi	Mesagne	Brindisi	8	123.483	558,63
LAG Terra dei Trulli e di Barsento	Alberobello	Bari	7	123.017	81,49
LAG Terra d'Otranto	Otranto	Lecce	24	97.931	508,42
LAG Terre del Primitivo	Manduria	Taranto	11	125.428	640,10
LAG Terre di Murgia	Altamura	Bari	2	90.217	571,17
LAG Valle della Cupa	Trepuzzi	Lecce	12	117.934	241,80
LAG Valle d'Itria	Locorotondo	Bari	3	75.606	397,00

Source: our processing on data by Apulia Region and the National Rural Network (2010)

The 25 selected groups represent an equal public-private partnerships, formed by the main public and institutional, economic and productive, cultural, environmental and social components operating within the geographical areas identified by its RDP. The LAGs will be entrusted with the task of planning and activating, through specific calls, the priority actions identified for each individual areas with the RDP objectives. In 2011, beside the parties oriented to rural development, new legal stakeholders were added. However, they acted on the regional PSR Axis I, represented by the chain partnerships.

Apulia is a region where the Italian agro-food sector is prosperous, thanks also to a number of firms exceeding 94 thousands units, and it provides job opportunities to more than 132 thousands employees. Apulia, with the development strategy referred to the seven productive sectors identified by the Regional Government, has approved up to 64 IPFs, funding 45 projects in 2011. The highest number of IPFs was registered in the Horticultural supply chains with 19 projects approved.11 projects were approved for the Cereal supply chain and the Wine supply chain; 9 for the Dairy supply chain; 7 for the Olive oil supply chain; 5 projects for the Livestock supply chain; just one project for the Forestry supply chain (see Table 2).

**Table 2.**The Integrated Supply Chain projects approved and funded by the Region of Apulia in 2011.

CEREAL CHAIN	APPROVED	DAIRY CHAIN	APPROVED
P.I.F. CEREALICOLO SILVIUM	YES	FILIERA LATTIERO-CASEARIA PUGLIESE DEI TRULLI	YES
P.I.F. CEREALICOLO PEUCETIA	SI	LATTE DELLA MURGIA DEI TRULLI	SI
PRO DOP ALTAMURA	SI	FILIERA LATTIERO-CASEARIA PUGLIESE GRANAROLO	SI
ORITALIA	SI	LATTE AMICO	SI
FILIERA CEREALICOLA PUGLIESE DEL TAVOLIERE	SI	FILIERA LATTIERO-CASEARIA PUGLIESE MURGIA BARESE	SI
FILIERA CEREALICOLA LEGACOOP	SI	FILIERA LATTIERO-CASEARIA PUGLIESE COLLINE JONICHE	SI
CEREAL QUALITY	SI	FILIERA LATTIERO-CASEARIA PUGLIESE DELLA CAPITANATA	NO
CERERE	NO	FILIERA LATTIERO-CASEARIA PUGLIESE DELLE MURGE E DELLE GRAVINE	NO
FILIERA CEREALICOLA CONCER	NO	FILIERA BUFALINA PUGLIESE DELLA DAUNIA	NO
FILIERA CEREALICOLA PUGLIESE DELLA MURGIA	NO		
FILIERA CEREALICOLA PUGLIESE DELLA CAPITANATA	NO		
OLIV CHAIN	APPROVED	LIVESTOCK CHAIN	APPROVED
APROL	SI	VAL. FIL. AVI VALORIZZAZIONE DELLA FILIERA AVICOLA pugliese	SI
FILIERA OLIVICOLO 100% PUGLIESE JONICO – SALENTINA	SI	FILIERA ZOOTECNICA DA CARNE PUGLIESE DEL SALENTO	SI
APROLIO	SI	FILIERA CARNE PUGLIESE DELLE GRAVINE	SI
FILIERA OLIVICOLO 100% PUGLIESE FEDERICIANA	SI	GESTIONE INTEGRATA E VALORIZZAZIONE DELLA FILIERA DELLA CARNE BOVINA IN PUGLIA	SI
OLIO TERRA DI BARI	NO	INTEGRAZIONE VERTICALE ED ORIZZONTALE DELLA FILIERA AVICOLA PER LA PRODUZIONE DI POLLI ALLEVATI ALL'APERTO "IL CAMPESE"	SI

NO

NO

L'OGLIAROLA

OLEOPUGLIA

HORTICULTURAL CHAIN	APPROVED	WINE CHAIN	APPROVED
CILIEGIA E ORTOFRUTTA TIPICA	SI	VINI DOC CASTEL DEL MONTE	SI
FILIERA ORTOFRUTTICOLA L'ECCELLENZA DELLA FRUTTA PUGLIESE	SI	AL CUORE DEL PRIMITIVO	SI
DELIZIE MEDITERRANEE	SI	FILIERA VITIVINICOLA PUGLIESE DEL NERO DI TROIA	SI
ORTAGGI E FRUTTA DI PUGLIA PRONTI IN TAVOLA. JENTU: UNA FILIERA PER INNOVARE E VALORIZZARE I PRODOTTI DI IV E V GAMMA.	SI	FILIERA VITIVINICOLA PUGLIESE DEL NEGROAMARO	SI
BEST FRUIT MANAGEMENT	SI	NORDWINE	SI
FILIERA ORTOFRUTTICOLA SALVI	SI	DUE PALME	SI
continuing Table 2			
HORTICULTURAL CHAIN	APPROVED	WINE CHAIN	APPROVED
FILIERA ORTOFRUTTICOLA IL PANIERE DELLE CONSERVE	SI	ENOTRIA	SI
FILIERA ORTOFRUTTICOLA PUGLIESE DAL TERRITORIO	SI	VIGNETI & VINI DI PUGLIA	NO
FILIERA ORTOFRUTTICOLA FUTURAGRI- GIARDINETTO	SI	SUD WINE	NO
OLIVA E CARCIOFO DELLA DAUNIA	SI	FEUDI SAN MARZANO	NO
VALORIZZAZIONE DELLE PRODUZIONI ORTOFRUTTICOLE DI QUALITÀ DELLA PUGLIA	SI	BEST WINE	NO
FILIERA FUNGO CARDONCELLO	SI		
FILIERA ORTOFRUTTICOLA IL PANIERE ROSSO DI CAPITANATA	NO	FORESTRY CHAIN	APPROVED
FILIERA FLOROVIVAISTICA PUGLIESE	NO	ENERLAND LEGNO – ENERGIA	SI
ORTOFRUTTA APULIA TIPIC	NO	FORESTAMBIENTE	NO
PRO.FIL.O.	NO		
PROGETTO VERDE	NO		
FILIERA ORTOFRUTTICOLA PUGLIESE DELLA DAUNIA	NO		
ORTICOLI E CONSERVE DI PUGLIA	NO		

Source: our processing on Apulia Region data (2011)

From what previously explained, it clearly emerges a programmatic fragmentation of the local development strategies, relentlessly opposed to the need for a harmonious development of regional economy. Therefore, with regard to rural development, it is crucial to achieve a unique organizational model, so to reconcile local planning and to compete within the globalized markets that dominate the food system. The principle of territorialization of regional interventions can represent a relevant opportunity for the implementation of development strategies and to make room for transnational and interregional programs, which are essential in fostering the development of relationships and networks. In order to plan a harmonious development of the regional economy starting from the local specificities, it is crucial to define a model of territorial organization of rural development in which the LAGs and the districts are called to work, according to the logic of integration and overcoming the territorial boundaries, in favor of a development of production chains and territories.

#### 4 The Metadistrict: essence and methodology for future analysis.

The integrated network approach is recommended by the Community policies<sup>4</sup> (Lisbon strategy, Structural Programs Funds 2007/13, Opinions EESC), at national level and in some regions. The key driving forces of development to revitalize local production systems include philosophy of unity, competitiveness, technological innovation and research. A further step in the direction of the approach and of the reticular models of development based on the connection and sharing of common interests, is represented by the experience of the Vast Areas and Metadistricts, being the latter our starting point.

The Metadistrict (whose first experience was born in Lombardy) is an area characterized by high interaction between districts coinciding with municipalities, even far from each other, in which firms from the same supply chain, (considered strategic), are concentrated. The Veneto region contains two important examples in this regard:

- The Veneto Cultural Heritage Metadistrict, recognized by the Veneto Region according to L. R. No 8 / 03 and No. 5 / 06, was born with the aim to support companies and stimulate the development of the entire supply chain heritage (restoration, conservation and enhancement). This experience is presented as only the Metadistrict linked to the cultural heritage The Metadistrict promotes and coordinates sector. national international projects, collaboration between firms and institutions, supporting research and experimentation and encouraging the exchange of know-how between science and business.
- The Digital Medial Metadistrict (MDM) is the first Italian Digital Media Cluster (as number of associated companies) and it is among the largest in Europe operating on highly innovative projects built with the aim to overcome the Venetian business fragmentation and, therefore, developing companies and the regional economy. The MDM Metadistrict experiments with new business models, promotes business incubation for start-ups, in liaison with the local incubators and venture capitalists, both nationally and internationally.

The Metadistrict can be considered, therefore, a connection model, not yet widespread, whose objectives are mainly two: a) to organize, on a long term, an industrial context that performed profitably over the last few decades; b) to ensure greater competitiveness and the largest diffusion on the territory, in order to 'distribute' the beneficial effect of growth (Cretì et Al., 2001).

The core of our paper starts from the creation and analysis of a new concept of 'Metadistrict', taking into account the Agro Districts, the Local Action Groups and the Integrated Projects of Food Chain. The District aims at promoting and creating local networks among the vertical subjects and between them and the development transversal subjects (cities, banks, universities, service, professional classes, etc...); the LAG is a model of territorial organization of local development; the introduction of the IPF requires, indeed, the development of models capable to interpret both the dynamics of vertical and horizontal coordination between agents, and the definition of the issues that most affect the ability of professionals to provide added value in exchange of competitive advantage. In our case, Apulia Region, we have a complex and fragmented structure (see prg. 3.1) composed by 45

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<sup>&</sup>lt;sup>4</sup> Lately the concept of "network of networks" finds its way not just as a model of human and economic development but also cultural, across the different sectors: thus, for example, in the opinion of the Committee of the Regions (2002 / C 107/22), in the European Parliament Resolution (2006), in "Communication From The Commission to The Council And the European Parliament, in Europe's Competitiveness - Towards an Integrated Approach (2003).

IPFs, 25 LAGs and 2 Districts. If we consider and analyze carefully this context we can see as the different supply chains are made objective, materialized, 'embodied' in IPFs. Correlatively, the promotion of territory goes through the Districts (at macro level) and the LAGs (at micro level) that represent the attempt to both formalize and create an essential and crucial network of stakeholders. In fact the different steps of the territorial marketing are based on connection among the several territorial actors that are the same stakeholders of the Districts and the LAGs.

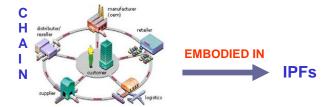
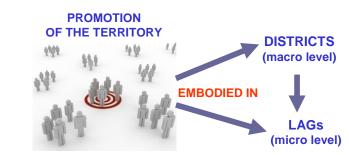


Figure 2 – The promotion of territory embodied in District and LAG



**Figure 1.** The chain embodied in IPFs Source: our elaboration

We can get an area integrated policy eliminating the fragmentation and creating a synergy between the actions of territorial marketing and the methodology of chain's relation activated for increasing productivity and improving the efficiency of and among different levels or chain's actors. If a chain works well, all the relationships among the participants will be efficient, the latter being the same territorial stakeholders that are instrumental in the promotion of the territory. The quality and identity of territorial production - resulting from the strong link between firms and territory and from the social as well as economic value of agriculture - combined with the need to develop regional and interregional networks, are the main factors of integration and competitive advantage: this is the reason why it is possible to promote the realization of sector circuits connected to the concept of multifunctionality, that is a Network of the Territorial Multi-functionality (NTM). There is, in fact, a new concept of 'rural' as interrelationship between agriculture, rural areas and landscape protection and social service economy (eg. Social Agriculture, Educational Farms, Social Farms, Horticultural therapy and so). In this framework, the Metadistrict as territorial strategy deriving from the Districts, LAGs and the IPFs may play a key role for the development of the rural areas and for revitalizing the primary sector: in particular, the Metadistrict may represent a crucial driver of the economy and can actively contribute to the improvement of the quality of life in Apulia, especially through the shared action of different stakeholders aimed at discovering and stimulating the innovative multi-functional activities for the protection and the best use of the territory.

We attempted to formalize the concept of NTM Metadistrict through a simplified Matrix Organization Model by taking into account the IPFs and the LAGs summation (the District basically shall include on the macro level the Chains and LAGs actors):

$$\sum_{i=1}^{n} \sum_{j=1}^{m} A_{ij} = {}^{NTM}M$$

where:

i are the IPFs

J are the LAGs

<sup>NTM</sup>M is the NTM Metadistrict formed by IFPs and LAGs

The Matrix Organization Model (Galbraight, 1971, 2001) is an organizational structure that facilitates the horizontal and vertical flow of skills and information. The basis for the matrix organization is an attempt to create synergism through shared responsibility between project and functional management because key people and activities can be shared with minimized cost and shared authority and responsibility too. With respect to other organizational forms, a matrix organization is a mixed form in which traditional hierarchy is overlaid by some form of lateral authority. In our case, this overlay in a matrix creates two kinds of command - one along the functional lines, the other along chain lines. Given the complexity of IPFs, LAGs management, the Matrix structure is, in the case of NTM Metadistrict, functional because of the need for strong technical assistance across different areas/chain/sector (Kuprenas, 2003).

The figure below shows the Matrix Organizational Model of our NMT Metadistrict. The IPFs were regrouped according to the different Chains, for example, 4 chains, Oil, Wine, Horticultural, Dairy. The LAGs were re-grouped horizontally and geographically within the geographical areas identified by its LDP and with a specific area of intervention of the development strategy. For example, in the case of the province of Foggia it will exist in the selected area a LAG aiming to disseminate information and know-how flows relating to new processes and technologies, organic farming, certification, etc.

Finally, the core of our Matrix Organizational model is corporate culture, coordination for mutual adaptation and therefore flexibility and suitability to the context. The advantage is that you can implement more balanced and more competitive choices because these affect the contribution of different and shared perspectives. The model offers high flexibility, and efficiency and good performance, because it does not duplicate the functions and the people and stakeholders that work are still the same. Moreover from the point of view of human resource development the matrix model provides interesting considerations with respect to the connection between the contribution of the individual and the achievement of the Metadistrict objectives.

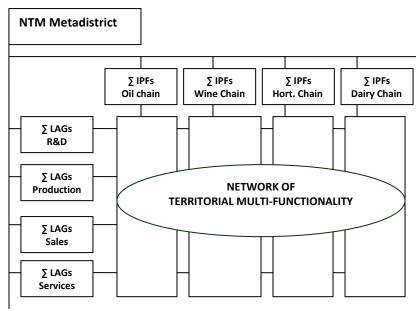


Figure 2. The Matrix Organizational Model of the NMT Metadistrict Source: our elaboration

This work may still be considered a proposal, a work in progress given the difficulty of activating and structuring an organizational model so complex, moreover in the light of the recent approval of IPFs and LAGs and considering the variety of matrix designs to be adapted and tested. For these reasons, several ongoing changes and additions will provide a better model definition in the next future.

#### 5 Conclusions

The philosophy that pervades the constitution of the Metadistrict is derived and based on a form of solidarity or at least trust that has developed through a relationship of 'proximity'. The Metadistrict cannot exist without a relationship (at least potential) between business and research in the field of production. In the long term, given trend towards the reticular character of both and social relationships, the "Metadistrict" is the most likely model to survive since the districts will take mainly two options: a) to evolve in Metadistricts, b) to disappear because of loss of business competitiveness compared to other organizational Αl., Therefore, the Metadistrict et 2001). promotional network connector and/or set of firms and territorial а agencies functionally directed to know-how, research and skills transfer among the members and, therefore, to increase networking and interaction between companies. A crucial role is assigned to the local social capital and to the social capital they will be able to exploit and to generate and, above all, to the relational skills that ranges from the identification, access and involvement of the resources until networking those resources (resource pooling) with planning processes aimed at increasing the value of resources (Helfat et al. 2007, 2010). Participating in a network means for a firm, especially small or medium, to access the know-how that alone would not be able to achieve, or improve, therefore, their competitive advantage, in special way in a time when the agro-food sector, in particular, is going through a crisis about the loss of competiveness and the future of the processing phases. In particular, the standard model is changing: the omologation of consumption (Mac Donald,

ODO, 4th and 5th range of products, GMO), the rediscovery of some values (land and the environment) together with the rediscovery of traditional products, those conventional and organic ones. A crucial negative point is the export of agro-food system; creating, through the Metadistrict, a strong and dynamic system based on the connections and mergers of firms and stakeholders can mean an increase of competitiveness and development of new outlets. In this context, the Metadistrict can bring the firms and all stakeholders towards a shared vision based on cooperation resulted in a truly integrated programming, consisting of IPFS, Lags and Districts. In addition, the District NTM can enhance, through the structuring of an efficient and well organized network, the multifunctional role of agriculture aimed at the environment and landscape maintenance, the promotion of rural tourism, farm, crafts, small industries and other activities related to the third sector in view of a global competitiveness too.

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