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## Conference Paper

# Social-cultural aspects of the functioning of an institutional network, which is the base for the regional pro-innovating strategy implementation

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**Social – cultural aspects of the functioning of an institutional network, which is the base for the regional pro-innovating strategy implementation.**

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Abstract

A technology transfer is a key to the efficient innovating strategy implementation process. The institutional network should support this process. The aim of the paper is to point out the “*soft*” circumstances, which appear when institutions start to cooperate in such network. Furthermore some directions will be given how to face negative circumstances.

In the first part of the paper the social – cultural aspects of cooperation between institutions within the network will be presented. The analyse will be mainly focused on the processes of autonomisation and enclosing on an external cooperation of these institutions.

The second part of the paper is a case study. A creation process of technological parks in the Silesian region will be analysed. Using this example methods of dealing with difficulties which are discussed will be demonstrated.

## **1. INTRODUCTION.**

The “soft” circumstances can be crucial for a success of each project. When a regional venture is realised they are even more important. That is why we analyse this area. The objective is to understand a role of all participants involved in a project and work out a methodology increasing effectiveness of management. In this paper we present a theoretic base for research methods and some examples based on our experiences in this subject.

## **2. AN INTELLECTUAL CAPITAL AS THE MAIN SOURCE OF SUCCESSES AND FAILURES OF REGIONAL DEVELOPMENTAL TRANSFORMATIONS.**

Process of implementation a local development strategy is a group of complex programs (ventures) initiated and executed by cooperative regional organizations and institutions. A cursory analysis of mentioned ventures allows to claim that in many cases most of them are destined to fail or not large success. This claim relates in a peculiar way to the pro- innovating regional strategies as the complicated ventures initiated in many European regions (also in Poland). The circumstance of creating and developing regional innovational systems is a conviction that all innovations arise in cooperation and interaction networks, also between competing groups which initiate and organize a process of implementation and such innovational ventures. A contemporary attitude to innovation theory takes into account not only the complexity and dynamism of innovation processes but also existence of numerous feedbacks between individual process stages. It is very important to gain a recognition of interaction on a local, regional, national and global level for innovation development both between individual organizational units and between organization and its environment. Such claim has had results in emerging of conception called innovation system which includes private and public institutions with relations between them contributing to creation, diffusion and use of new market useful knowledge. Such institutions are situated and embedded in administrative boundaries. (Wojnicka E. *Regional innovation system in Pomorze Province*. Market Economy Research Institute.)

A very important example of such systems is the regional innovation system (RIS) defined as institutions generating knowledge and innovation and connected with network of varied interactions and links and simultaneously opened ( connected with other national or overseas innovation systems. The elements of RIS are companies, public research and development (

colleges, public and private university institutes ) and mediating institutions ( public non-commercial innovation and technology transfer centers and commercial knowledge receptive services similar to business as engineering consulting).

The concept of RIS is closely connected with a cluster concept. In a narrow depiction the cluster can be described as a group of firms accumulated on a given area whose economy success is partly determined by mutual interactions facilitated through geographical closeness. These interactions are present in cooperation and competition and also often are effects of following positions in value supply chain (Padmore T. & Gibson H. 1998. Modeling regional innovation and competitiveness. *J. de le Mottle*. London).

A pro - innovation economic development in Europe is propelled by about two hundred regional innovation systems (clusters) as subnational regions and urban agglomerations having effects in creating the knowledge receptive and technologic investments.

In Poland works dealing with a creation and an implementation of such regional innovation systems has taken. A basis of these ventures (projects) poses the diagnosis of condition concerned with effective and efficient project realization.

Research results related to intensity of cooperation between companies and different elements of regional innovation system's infrastructure reduce to following conclusions.

Conclusions:

1. Disregard to organization and institution as system creating advantages of cooperation.
2. Narrow perception of competition ( exclusively as threat).
3. Domination of superficial and shot-term cooperation forms.

Aspects characterizing real barriers and shortages in RIS realization:

- Deficiency of sufficient institutions cooperation in innovation area at local and regional level,
- Problems connected with shortage of information system between scientific institutions and firms,
- Deficiency of organization supporting business and firms knowledge about resources, scientific potential, technologies of research and development institutions,
- Deficiency of commune support in over - local venture realization,
- Deficiency of performed leaders fulfilling an active role in cooperation development,

- Deficiency of firm communication what results in not adjusted to real needs programs and projects,
- Deficiency of integrated attitude to develop existing actions ("We should not built matters anew, we must extend existing matters"),
- Deficiency of a trade attitude to problems and needs,
- Deficiency of a legibility and practical attitude to information passing,
- Deficiency of an access to complete database fulfilling companies needs.

Our experiences and knowledge receiving thanks to works for groups integrating during realization of different ventures consisting of regional innovation systems are the basis to ask following questions:

- Why correctly designed regional projects are not consistently realized?
- Why active actors of these ventures do not want to cooperate after some time?
- Why next projects of the same type run into increasing obstructions at the beginning?

Discussion to the point of above mentioned questions describing problem areas is the subject of a present report.

A synthesis of conclusions dealing with research and analysis of barriers of local development implementation reduces to the claim that the main such process barrier lies in his social and cultural conditions. In other words the intellectual capital in region definitely describes environment of entrepreneurship development and innovation; Thereby, the intellectual capital in region determines efficient realization of ventures deriving from regional development strategy.

M. Gancarczyk (Gancarczyk M. Environment for entrepreneurship and innovation development as a intellectual capital of territory. Intellectual capital: dilemmas and challenges edited by Poczowski A. College of Business. Nowy Sącz 2001) says that environment for entrepreneurship and innovation development creates the manner of territory organization such as networks ties both between firms and between firms and environmental organizations which are based on formal and informal institutions in region.

A component of this environment is the intellectual capital of region. Especially important component defining a nature of innovation and entrepreneurship environment in region is a nature of social - interpersonal ties. These ties form and describe a character of interorganizational ties in region such as trust, loyalty, solidarity and social accountability.

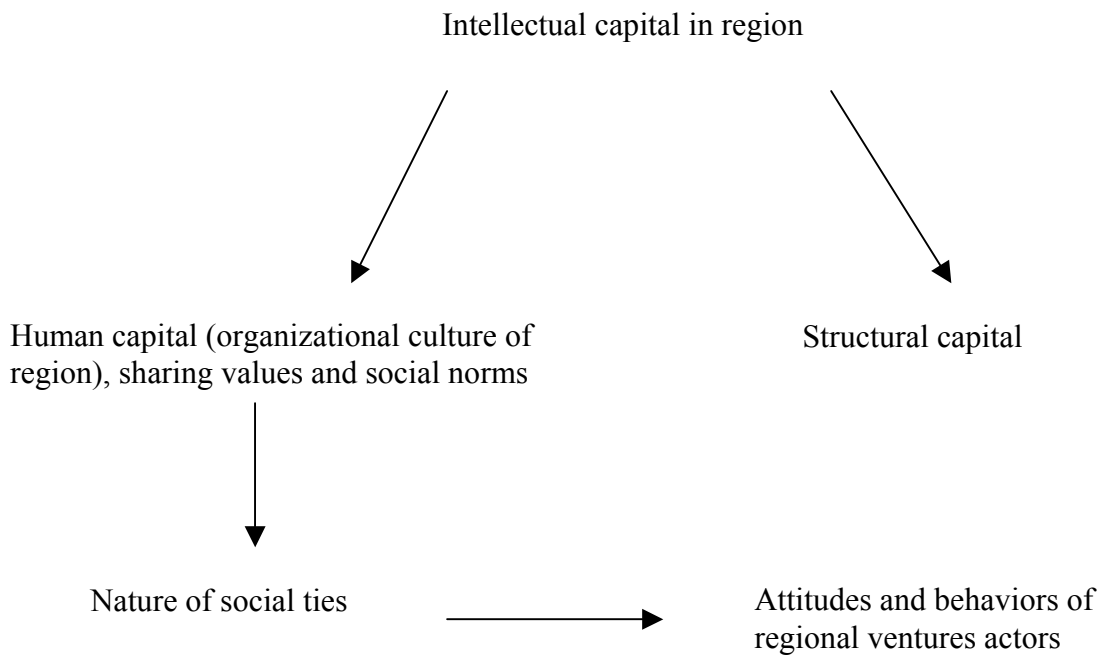
Lately, in management and economic sciences idea of social capital adapted from sociology has had a great significance. More and more practical managers and theoretical economists consent to social capital creation in organization and region. On the one hand the social capital indicates positive aspects of interpersonal relations and on the other hand lists in integrity of widely comprehended organization capitals; Thereby, it emphasizes the significance of not material capital as a source of reign. (Bratnicki M., Strużyna J. 2001. *Entrepreneurship and intellectual capital*. AE in Katowice.).

In Edvinsson's and Malone's (2001) opinion an intellectual capital is a sum of embedded in capitals culture a human and a structural capital. In reference to this definition the intellectual capital means the connected knowledge, skills, innovation and individual workers capacity to efficient tasks execution. The intellectual capital includes also company values (mainly trust) and other elements of organizational culture and a company philosophy. In this depiction a human capital includes also social capital.

A structural capital presents a human capital infrastructure and includes software, trademarks, databases, organizational structure, patents and quality of relations with clients. The structural capital encompasses everything what supports the human resources productivity. Components of structural capital are an organizational capital (investments, systems, structures, manners of informational transmission), an innovative capital (intellectual property, trade law, channels of new products implementation), processes capital (work processes, work techniques, quality systems etc.).

M. Bratnicki (Bratnicki, Strużyna 2001) characterizes the coherent and uniform concept of capital organization structure. In reference to his opinion intellectual capital consists of social, human and organizational capital. Trust is a part of social capital in organization and forms interpersonal relations dimension (beside culturally controlled norms, obligations to take activity and future identification). All intellectual capital elements are connected and affect each other. Trust embedded in culture offers conditions to create new capitals (also financial) and supports capital investments positive investment conditions. Social capital consisted of organizational culture and trust can regulate human behaviors in personal relations in order to reduce transaction costs in organization.

According to Edvinsson's, Malone's, Bratnicki's and Garnarczyk's works about intellectual capital understanding there is following proposal of regional intellectual capital structure (figure 1).



**Figure1. Intellectual capital structure in region.**

The structural capital of region is a subject of known Markusen's works (Markusen A. *Stricky places in Slippery Space: A Typology of Industrial Districts*. Economic Geography 1996, 72(3).) and other practical works which describe recommendations dealing with the cluster creation in region. However, intellectual capital in region and common significance recognition to strategic processes of regional transformation has not been a subject of development analysis yet. The intellectual capital is an element of research leading for other goals ( Hofstede's organization culture research(Hofstede G. *The International Manager*. Braham and Oates Economist Books Ltd.1991.), HDI analysis in Silesia region HDI (Human Development Index) Reports for Katowice voivodeship according to ONZ methodology Katowice 1998).

In this range we can also distinguish Fukuyama's works for the sake of social ties (especially trust) which play an important role in the regional economic potential creation. Fukuyama puts emphasis on social and organizational trust context whose inseparable feature are consequences of low or high trust levels spread between participants of professional group, company, local societies or nations. This consideration joins integrally trust with productivity, economic mobility and economic success.

In Fukuyama's depiction crucial to analysis of an economic company and a country success is trust which assumes a cultural dimension. Through definitions analysis trust should be unambiguously regarded as a regional culture component.

### **3. MANAGEMENT OF THE INTEGRATION PROCESS BETWEEN REGIONAL VENTURE PARTICIPANTS.**

The undertaking and execution of a regional venture as a individual project realization whose aim is defined in regional development strategy is possible only thanks to cooperation between many organizations and institutions (venture participants). This venture must be managed what means that its quantity and quality structure of resources and processes should be planned. During the venture realization should be organized the realization processes ( also processes and relations of cooperation, motivation and control participants ) in accordance with venture aims. An important component of all project management functions is organization process with integration of venture participants. It entails such interorganizational relation creation between participants (formed by their attitudes and behaviours) that actor group could take shape of integrated-coherent-solid networks of cooperative actors. Then their behaviours will contribute to project leading in accordance with methodological efficiency criterions (Action in accordance with criterions of methodological efficiency maximization means a maximum use of possessed in the moment of project beginning knowledge, knowledge gained as a result of individual situation diagnosis and knowledge gained in realization process). The next stages of group participants integration development as a taking shape of integrated group encompass following phases: integrity-cohesion-solidarity.

The characteristic of this process is double aspirations for rationality: rationality of project realization process (regional ventures) and rationality of process determining an efficient and economical process course (aspiration for rationality of participated actors integration).

A participants behaviour moulding is described by answers for two mutually connected question groups:

- 1) How integration process (integrity-cohesion-solidarity) between participants should be moulded?
- 2) What kind of management tools and methods should be used to rationalize a structure and course of the project (venture) realization?



The answers for first group questions characterizes the answer range and content of second group questions and vice versa.

The answers for above questions are fulfilment of the report thesis and their searching assumed by discussion of innovation process cases and realization of ventures included in the RIS in Silesia Province.

In order to this analysis the following diagram (ideological management of participants rational integration process) was drawn up (figure 2).

Block 1 - current state diagnosis. It includes profile of actors behaviours in institutions and organizations.

In the description of attitudes and behaviours of individual participants we use the intensity of attitudes and behaviours which are elements of their role syndromes such:

- dominant actor (using his position knowingly),
- administrator of project key resources,
- dependent actor ( configuring his own behaviour according to influences in the group),
- dangerous actor (preferring his own interests to the group ones,
- decisive actor (owning a decision power).

Participant social roles:

- encouraging ( motivator),
- harmonizing,
- specifying aims (strategist),
- focusing on consensus (moderator),
- following others (acceptant),
- antagonist,
- seeking respect.

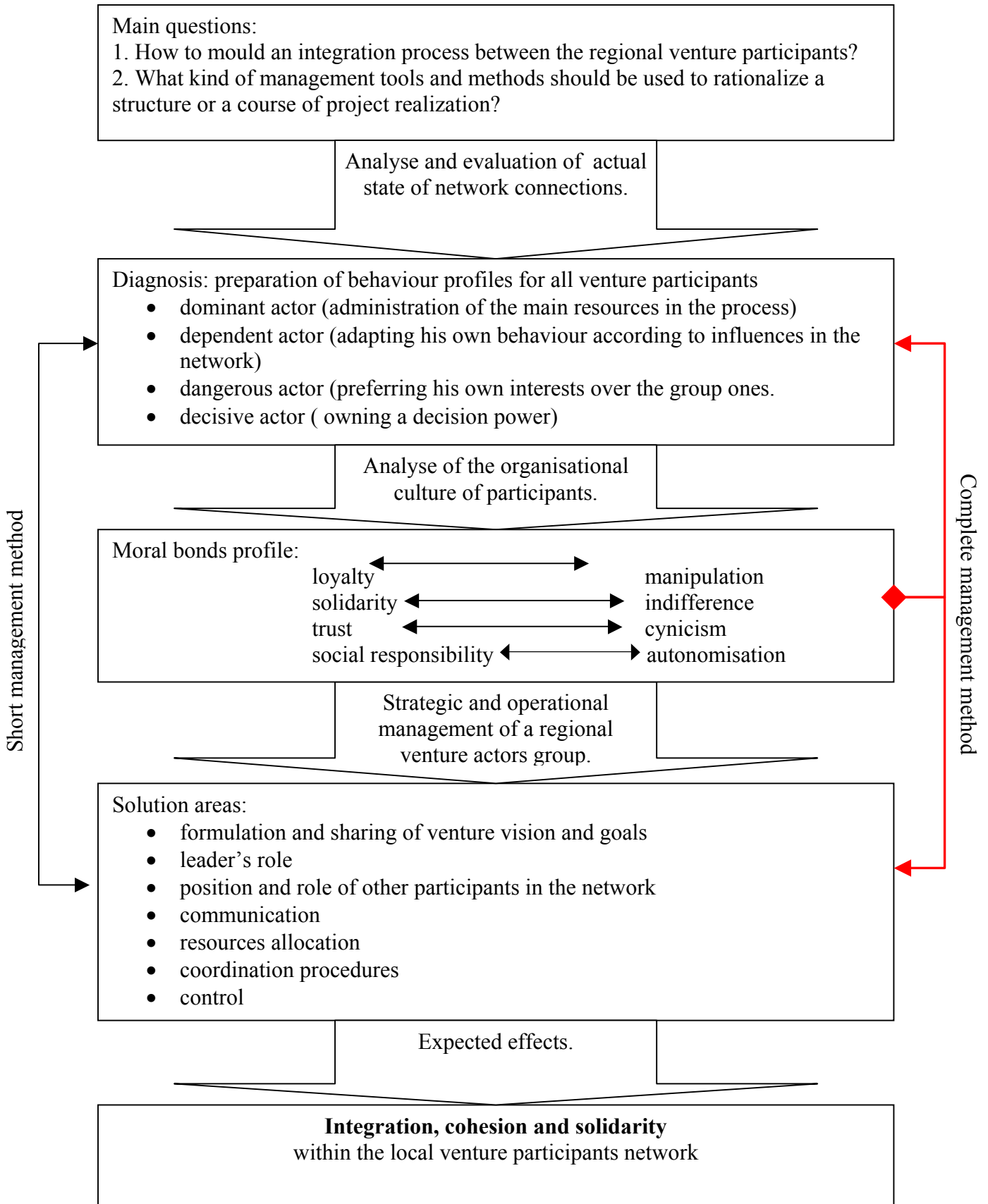
Participant task roles:

- seeking information,
- explaining,
- steering,
- judging,
- etc.

Block 2 - group management process organization.

According to knowledge of individual participants behaviour profile we should look for methods and solutions in following ranges:

- forming and sharing of venture common vision and goals,
- leader's role,
- network position and role of other participants,
- communication procedures,
- resources allocation,
- rules of coordination,
- control.



*Figure 2 Management of the integration process between regional venture participants.*

The works dealing with process organization and management are taken by participant - decisive actor possessing reign or resource control or reign and resources used in group management process. Designing process of participant network according to above mentioned procedure is very simplified because it do not include a real reason - result relations forming participants behaviours and thus their network relations. A behaviour procedure concerning to causes of regional venture participants behaviour was proposed for advanced works. The causes of participants behaviours designing interorganizational relations in network should be sought in organizational culture profile (Organizational culture we define as (Stachowicz J) 2001. This definition emphasizes processional profile of behaviour description design in organization in connection with shared system of value, social norms and their mutual structure.) of such mother organizations and institutions (regional venture actors).

Diagram (figure 3) presents a procedure of deepened diagnosis of individual participants organizational culture.

The report authors gained knowledge in research and analysis of organizational culture designing processes in economic organizations (Stachowicz J., Machulik J. *Organizational culture of industrial companies*. PAN. Katowice Department.).

Work experiences with reference to origin and reasons processes of creation social ties in groups and networks indicate an advisability of ties nature recognition as main characteristics of participants' organizational culture.

We assume that research of participants' organizational culture will be expect the formulation of duty bonds profile according to each participants.

Social bond is a connection between people, on a field of shared social and economic values with an utilitarian or symbolic character.

Inter-organizational bonds are set of all the organizational bonds based on moral or ethics rules which assure durable existence and development to a group of people.

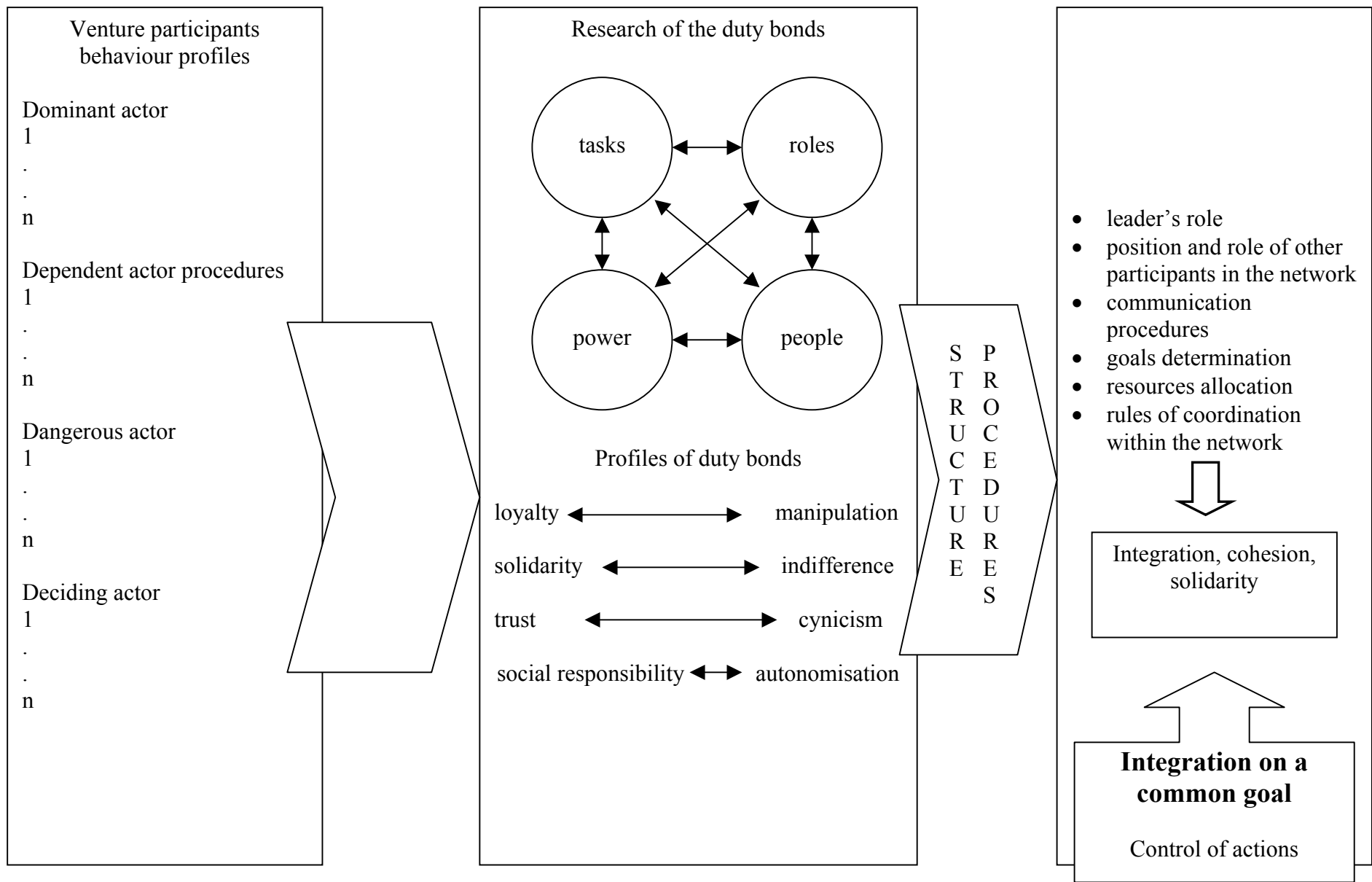


Figure 3. Diagnosis of regional venture participants organisational culture

The research on a field of organizational culture of venture participants is based on analyse of their attitudes. The attitude is characterise in four dimensions. These dimensions present some moral norms which are a base for teamwork in an organisation. Thanks to detailed analyse of this field we can draw a behaviour profile of project participants. This profile shows us where are a strong points and were are the weaknesses in the organisation. Thanks to this knowledge we are able to use the best management method to force up positive trends and reduce negative ones. The complete management method presented in figure 3 lets us choose the right solution and act in a most suitable way. That is why it will be easier to achieve a final goal which is integration, cohesion and solidarity within the network of institutions.

#### **4. ANALYSE OF REGIONAL VENTURE PARTICIPANTS GROUP. (CASE STUDY OF RIS – SILESIA PROJECTS REALISATION).**

The goal of the research was to analyse an impact of stakeholders on a creation process of innovating ventures in Silesia region. Example is the creation of technological park. The research should give an answer on following question: how the social bonds and relations between regional institutions can impact a process of creation and formulation of strategy for the Technopark and finally it's effectiveness?

There are several groups of stakeholders : local authorities (communes - gminas), regional authorities, central authorities, the chambers of industry and commerce, agencies of regional development, universities, research and development institutions, Venture Capital institutions, banks, enterprises and private persons. The methods of research were based on *informal interviews* and *observation with participation*. The interviews were made in April and May 2002 in the area of impact of Technopark in Gliwice.

##### **4.1 Innovating initiatives in Silesia Province.**

According to Development Strategy of Silesia Province many innovation projects are being realised. One of the most important is RIS – Silesia project. The aim of this project is to work out a Innovation Strategy for Silesia. Technopark in Gliwice and Regional Centre of Innovation and Technology Transfer are the examples of concrete initiatives and a base for this case study.

Identified behaviour profile of participants in Technopark Gliwice project.

- one dominant actor – a leader and an initiator of a project, owning all needed resources on this stage of project
- one decisive actor – respected by the other actors because of power and importance in the city. Owning some decision power with friendly attitude to this venture because of it's high development potential.
- several discrete, silent actors – with a positive attitude to the venture, seeing themselves as a support, but on this stage of project they don't want to be directly engaged.
- several dangerous actors – they want to become leaders. With their own ideas for project realisation and high ambitions.
- one demanding actor – with his own conception and some recommendations for the project, if necessary he can dictate some requirements. With rather positive attitude.

The profiles of behaviour identified above point some possible obstacles for a further realisation of this venture. The question is : How to manage the relations between participants in order to intensify the positive behaviours and reduce the negative ones. In order to determine reasons of participants behaviour a deeper analyse of social bonds existing between them has been done.

#### **4.2 The deep analyse of social bonds between the venture participants in aspect of : loyalty, trust, solidarity and social responsibility.**

A level of identification between institutions in the town is estimated as satisfactory. A force of relations between them is rather weak and seen in a competitive relatively way. One of asked persons said : some of potentially good projects failed they complicate private interests of some actors”.

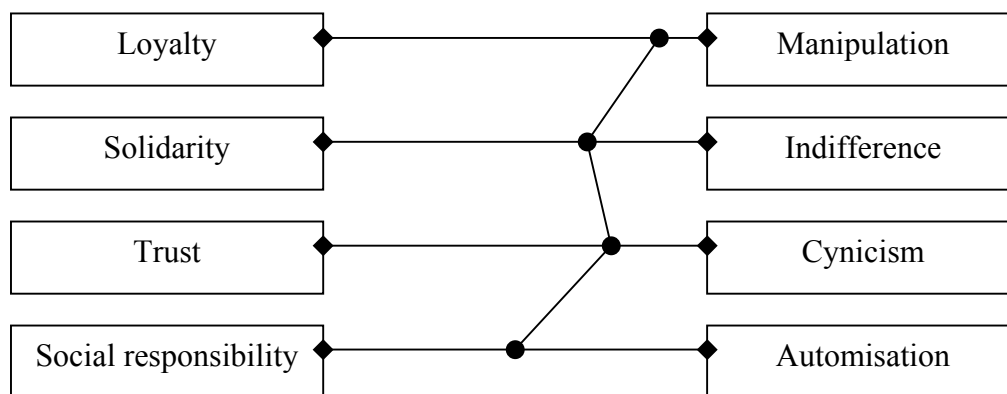
Loyalty between actors is evaluated very low. When a project is started nobody refuse to participate in this venture because of potential benefits. Unfortunately sometimes one institution can be involved in two or more conflicting projects in the same time. Quite often a participation of some partners is rather virtual. The institutions are not very involved in a project.

Speaking about *solidarity*, the interlocutors points that nobody cares about common interests if it is contradictory with his own business.

A real *trust*, in opinion of interlocutors, doesn't exist. Institutions try to be friendly and don't disturb each other, what gives them a filing of safety.

Finally the area of social responsibility. Usually an organisation is trying to do its duty to protect and consolidate the community in which it exist.

Figure 4 presents the conclusion of this research.



**Figure 4** *The behaviour profile of venture participants.*

Generally we can say that a level of cooperation between different local institutions is quite low. The greatest chances of success have initiatives were few actors are involved. The major danger are the institutions which prefer their own ambitions and goals to the common ones. This contradiction of interests often cause a delay in project realisation or even its failure. What's more, there is no cooperation between organisations from different sectors, for example MSE and research and development sector which don't speak "the same language". Of course an agreement between these organisations is very important especially for the ventures with innovating character.



## **5. CONCLUSIONS.**

The intellectual capital of a region has a crucial influence on a pace, scope and a manner of organizational development and it impacts a creation of inter-organizational bonds between the participants of a local venture. We have shown in this paper a model of analysing and managing of an intellectual potential in a region. A knowledge obtained thanks to the research that we have proposed is a key to rationalisation in a formulation and realisation of regional ventures. It is clear that an aspect of the social bonds should be considered very precisely in each local or regional project. These bonds decide about a manner of cooperation or competition between all actors. Our research should show the best way of managing in this *soft* area of a project. The area which can appear a crucial one for a final success of whole venture. Of course we will continue our research because, as we think, there is still a large space of uncovered aspects and problems. We think that the approach we have presented is a good beginning.