

# A Public Value Evaluation of e-Government Policies

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**Abstract:** Public Administration aims at producing value for citizens; the use of ICTs to improve government and governance, as implied by e-Government, can be considered as a means to increase the public value produced by Public Administration. As a consequence, the policies for e-Government can be evaluated according to their ability to increase the Public Administration capacity of producing public value, both for citizens as users and citizens as operators of Public Administration. In the first case, the policies for e-Government can be evaluated with respect to the quality of the services delivered to citizens; in the latter case they can be evaluated with respect to their ability to improve the system of Public Administration.

In this paper, we describe a public value evaluation of two different systems of support to e-Government projects implemented in Lombardy Region (Italy). Both systems support Small Local Government Organizations that set up aggregations in order to implement innovation projects. The two systems we will consider concern the funding for e-Government projects according to the Italian National Action Plan for e-Government and the Regional Government funding for the implementation of Inter-organizational Information Systems for Local Government (SISCoTEL).

Considering the stability in time, the attractivity and the level of trust within the funded aggregations as indicators of public value (considered from an internal point of view), in the paper we will use data concerning the Local Government in Lombardy to compare the two supporting models according to their capacity to set up aggregations that are stable, attractive and that could strengthen the level of trust among the partners.

In section 1 we will describe some of the actions currently in use in Italy to support the spread of E-Government at a local level. In section 2 we will describe the models for supporting innovation implemented in the National Action Plan for e-Government and in the Regional Plan for the activation of SISCoTELS. In section 3 we will compare the main characteristics of the two supporting models. Finally, in section 4 we will evaluate the two models, from a public value point of view, with respect to their capacity to strengthen the cooperation among Local Government organizations.

**Keywords:** e-Government, public value, local government, inter-municipal cooperation

## 1. Introduction

Starting from the year 2002, the development of e-Government in Italy has been based mostly on projects funded under the National Action Plan for e-Government (DIT, 2002), managed by the Italian National Centre for Information Technology in Public Administration (CNIPA). Yet, also before 2002, some Regional Governments implemented programmes for the innovation of Local Government based on a widespread use of ICTs that, by assuming a broad definition of e-Government (OECD, 2003), can be considered as policies for the spread of e-Government at the local level. As a consequence, many Italian municipalities, that adhered to these initiatives with the only aim of accessing financial resources, have been involved at the same time in different innovation programmes which share the same object, but pursue aims that sometimes could be different. This fact caused considerable problems in the management of the innovation projects, in some cases slowing down considerably their accomplishment (Castelnovo, Simonetta and Lasi, 2006).

However, the activation of different innovation programmes within the same Local Government system also enables to compare them with respect to the outcomes they produce, allowing the evaluation of the effectiveness of alternative policies for supporting innovation.

In this paper, taking Lombardy Region as a case study, we will compare two different models for supporting the spread of e-Government at the local level by considering their outcomes with respect to the system of the Local Government of Lombardy.

Lombardy, with about 9.4 million inhabitants (15,8% of the whole Italian population) is the most densely populated and economically relevant region in Italy: Lombardy contributes to the Italian Gross Internal Product with a percentage which, during the years, has been constantly higher than 20%.

Moreover, Lombardy is a region that with respect to most of the Information Society indicators (for instance those considered in the eGovernment Factsheets published by IDABC (IDABC, 2008)), shows values higher than the Italian mean national values, as shown in table 1:

**Table 1:** Information Society indicators - comparison between Italy and Lombardy

	ITALY	LOMBARDY
Percentage of households with Personal Computers	46,1%	52,1%
Percentage of households with Internet access	35,6%	42%
Percentage of enterprises with Internet access*	91,7%	94,5%
Percentage of households with a broadband connection	14,4%	16,9%
Percentage of enterprises with a broadband connection*	56,7%	64,3%
Percentage of individuals having purchased/ordered online in the last three months	13,1 %	15,4%
Percentage of individuals using the Internet for interacting with public authorities for obtaining information (in the last three months)	37,4%	38,2%
Percentage of individuals using the Internet for interacting with public authorities for downloading forms (in the last three months)	26,8%	24,4%
Percentage of individuals using the Internet for interacting with public authorities for returning filled forms (in the last three months)	12,6%	12,1%
Percentage of enterprises using the Internet for interacting with public authorities for obtaining information (in the last three months)*	65,5%	70,2%
Percentage of enterprise using the Internet for interacting with public authorities for downloading forms (in the last three months)*	63,7%,	69,7%
Percentage of enterprises using the Internet for interacting with public authorities for returning filled forms (in the last three months)*	33,7%	36,3
Source: ISTAT, period: 2006		
*: data referred to the year 2005, since there is not corresponding data for Lombardy in the year 2006		

In 1999 the Regional Government of Lombardy activated the project "Progetto Carta Regionale dei Servizi - Sistema Informativo Socio Sanitario" (CRS-SISS: Regional Citizen Card - Healthcare Information System. The project was focused on the implementation of healthcare services whose secure access can now be granted to both healthcare professionals and Lombardy citizens by means of the Regional Citizen Card (Carta Regionale dei Servizi, CRS hereafter). At the end of 2007, about 9.3 millions of CRSs were issued that can now be used also to access services delivered on line by the Public Administration organizations of Lombardy (Beretta, Bresciani, Ferrari and Zuffada, 2006; Castelnovo, Simonetta and Lasi, 2006).

Finally, the Local Government system of Lombardy is particularly complex: in Lombardy there are 12 of the 109 Italian provinces and 1546 of the 8101 Italian municipalities. Out of the 1546 municipalities of Lombardy, 1153 (75% of the total amount) are Small Local Government Organizations (we consider as SLGOs municipalities with less than 5000 inhabitants; almost 20% of all Italian SLGOs are in Lombardy).

For all these characteristics, Lombardy Region represents a good case study for evaluating the impact of different policies for the spread of e-Government at the local level. In the paper we will consider the impact two different models for the development of e-Government at the local level had on the system of Local Government of Lombardy. The models we will consider are:

- the funding for E-Government projects, according to the first phase of the Italian Action Plan for E-Government (hereafter NAP\_e-Government-1);
- the Regional Plan for the activation of Inter-organizational Information Systems for Local Government (hereafter RP\_SISCO TEL)

In section 2 we will describe briefly the two programmes and will provide data about the involvement of the municipalities of Lombardy in them. In the case of RP\_SISCO TEL the data we will consider is published on the web site of the Regional Government of Lombardy. In the case of NAP\_E-Government-1 we will consider data from two sources:

- the Fourth Annual report on Innovation in Italian Regions published by the Italian network of Regional Centers of Competence on e-Government and Information Society (CRC, 2006)
- the fifth report of the monitoring of the e-Government projects funded by the announcement of first phase of the Italian Action Plan for e-Government (CNIPA, 2007c)

In section 3 the two supporting models will be compared as regards some criteria concerning the goals of the funding, the characteristics of the recipients and the time span covered by the supporting actions. Finally, in

section 4 we will suggest an evaluation, based on the concept of public value, of the impact the two different models have determined on the system of Local Government in Lombardy.

## **2. Local systems of e-Government in Lombardy**

### **2.1 Regional plan for the activation of SISCOTEL: RP\_SISCOTEL**

In Lombardy Region, technological and organizational innovation processes in SLGOs have been supported mainly by the Regional Government that funded aggregation of municipalities for the implementation of Inter-organizational Information Systems for Local Government (Regione Lombardia, 2002).

An Inter-organizational Information System for Local Government (SISCOTEL) is a technological and organizational infrastructure shared within an aggregation of municipalities (typically SLGOs) for the activation of inter-municipal cooperation. For this reason, the funding of a SISCOTEL does not simply support the technological innovation in the SLGOs involved in the project. Actually, the announcements for the regional funding explicitly require the municipalities adhering to a SISCOTEL to implement inter-municipal cooperation for the management of at least three services.

Between 2001 and 2005 five announcements for the funding of SISCOTELS were published. In the first two announcements the stress was particularly on the innovation at the back-office level, whereas starting from 2003 the SISCOTEL announcements include explicitly also the requirement of implementing online services to citizens and enterprises that should be accessible through the Regional Citizen Card.

In order to enable the associated management of services within a SISCOTEL, the regional announcements define some technological and organizational conditions which must be satisfied. Such conditions require (Regione Lombardia, 2005):

to set up aggregations covering geographically contiguous areas (aggregations including municipalities belonging to different provinces cannot be financed).

to join the virtual private network Lombardia Integrata, which links on equal terms all the member organizations and which allows a safe exchange of information and services among Local Government Organizations of Lombardy (Regione Lombardia, 2008);

- to adhere to inter-operability and communication standards;
- to structure the application portfolio on the basis of a standard articulation in functional areas and services defined by the Regional Government;
- to realize training projects related to ICTs and organizational innovation in all the SLGOs following the programme;
- to activate a Shared Services Center (SSC) which provides the member municipalities with services concerning the management of the ICT infrastructures and applications, the coordination of training activities for the operators, the management of the contracts and the delivery, on behalf of the municipalities, of services to citizens and enterprises;
- the commitment to maintain the collaboration with the partners and to benefit from the services delivered by the SSC for at least 36 months since its activation.

In the period from 2001 to 2005, 104 SISCOTEL projects have been funded; some of them regarded the implementation of new SISCOTELS, others regarded SISCOTELS already activated. The 104 projects altogether involved 983 out of the 1546 municipalities of Lombardy (63,5% of the municipalities of Lombardy) and led to the activation of 76 SSCs. 133 municipalities adhered to more than one project; more specifically, 8 municipalities joined 3 projects (in 3 different years), while the remaining 125 joined 2 projects (in 2 different years). This gives a total amount of 1124 adhesions of municipalities to the SISCOTEL programme.

### **2.2 National action plan for e-Government: NAP\_E-Government**

The Italian National Action Plan for E-Government is based on two phases of intervention that support innovation projects on a territorial level. The first phase started in 2002 (DIT, 2002) with an announcement for the co-financing of E-Government projects with the aim of:

- using ICTs in order to achieve a significant increase in quality and efficiency of the services delivered to citizens and enterprises;
- promoting the creation, or the transformation, of the services delivered by Local Government into online services, or anyway services accessible through multiple channels.

More specifically, the objective of the first announcement was supporting projects for the implementation both of e-Government services for citizens and enterprises and of infrastructural services. The recipients of funding were both single administrations and aggregations of municipalities already existing or specifically set up for accessing the funding. As a matter of fact, most of the funded projects have been submitted by aggregations of administrations which took part in the projects also simply for the possibility to reuse the implemented systems.

As regards the composition of the aggregations, the announcement did not include any requirement of homogeneity among the partners; for this reason, some aggregations were joined both by large municipalities (acting generally as leaders of the aggregations) and by small or even very small ones. Similarly, the composition of the aggregations was not subject to any geographical requirement; for this reason some aggregations include also municipalities belonging to different provinces and regions.

This first announcement was followed by the presentation of 377 projects, whose overall value was 1200 million euros. Out of these 377 projects, 134 have been co-financed with 120 million euros (for an overall value of about 500 million euros). (CNIPA, 2007a)

The projects were started in spring 2003, after the signing of all the agreements for their activation, and should have ended within 24 months. On the 30th of April 2007, 2 financed projects had never been started, 100 projects had been completed, 9 had an advancement between 90% and 99%, and 16 projects had an advancement lower than 90%. This leads to a mean delay of about 23 months with respect to the expected conclusion of the projects. (CNIPA, 2007c)

The announcement funded three types of services: services for citizens, for enterprises and infrastructural services. Out of the 134 funded projects:

- 14 were devoted exclusively to the implementation of services for citizens
- 15 were devoted exclusively to the implementation of services for enterprises
- 17 were devoted exclusively to the implementation of infrastructural services
- 31 concerned services both for citizens and for enterprises
- 24 concerned both services for citizens and infrastructural services
- 5 concerned both services for enterprises and infrastructural services
- 28 concerned all the three types of services

As regards the amount of the services object of the different projects, on the 30th of April 2007 only about 79% of the total services had been delivered (CNIPA, 2007c).

Out of all 134 projects which have been funded, 25 involved public administrations of Lombardy. Out of these, 4 were carried out directly by the Regional Government, 6 involved other bodies of public Administration which are not municipalities, whereas 15 concerned municipalities. These are divided into 5 projects involving only one municipality and 10 projects submitted by aggregations of municipalities.

Altogether 628 out of the 1546 municipalities of Lombardy (about 40% of the total of the municipalities of Lombardy) took part in the projects of the NAP\_E-Government-1. As in the case of SISCO TELs, some municipalities adhered to more than one project; this gives a total amount of 729 adhesions to the programme. The total amount of the funding for the municipalities of Lombardy adhering to the projects is about € 20,3Mln.

On a national basis, NAP\_E-Government-1 involved about 3400 municipalities, with a percentage of participation similar to that of the municipalities of Lombardy (41% of the total of the Italian municipalities). (MIT, 2003)

### 3. Comparing the funding programmes

Both the RP\_SISCoTEL and the first phase of the NAP\_E-Government-1 support innovation in Local Government by funding the acquisition of hardware, software and connectivity devices. However, although the two programmes intend to support innovation at the local level by using similar tools, the objectives they pursue are quite different.

In this section the two supporting models will be compared with respect to:

- the goals of the funding programme;
- the characteristics of the recipients of financing;
- the time span covered by the supporting actions.

#### 3.1 Goals of the funding programme

The RP\_SISCoTEL was activated in 2001 with the aim of fostering the model of inter-municipal cooperation for service provision through the widespread use of ICTs. To this end, a special attention was given to the need of integrating the information systems of the single municipalities. The goal of the RP\_SISCoTEL funding programme was supporting both technological innovation (integration of information systems) and organizational innovation (activation of Shared Service Centers) as a way to promote the cooperation among municipalities and to increase the level of quality of the services delivered to citizens and enterprises.

The projects funded under the RP\_SISCoTEL have mainly been devoted to the activation of inter-municipal cooperations for the management of:

- demographic services and anagraphic certifications
- land and buildings registry
- territorial data
- municipal finance and local taxes
- ICT services

The delivery of online services (which is one of the conditions for accessing funding starting from 2003) is supported only indirectly by the RP\_SISCoTEL: the sharing of resources within an inter-municipal cooperation allows the partner to implement new services and new channels to access them.

On the contrary, the NAP\_E-Government-1 funding programme is specifically devoted to the implementation of technological solutions (systems and infrastructures) for the delivery of online services. The announcement of financing does not refer to any organizational requirement to be satisfied by the partners of an aggregation submitting a project.

The data concerning the content of the projects funded under the NAP\_E-Government-1 (shown in table 2) confirms this observation. As a matter of fact, 44,8% of the funded projects devoted to the implementation of services for citizens and enterprises concerned the realization of web portals. This data confirms that national policies for the spread of E-Government in Italy have been especially oriented towards the implementation of technological conditions for delivering online services.

**Table 2:** Object of the projects funded under the NAP\_E-Government-1 (CRC, 2003)

Type of Service	Number of projects	Amount of the financing
Portals	44	€ 52.210.000,00
Services for enterprises	27	€ 13.380.000,00
Job related services	6	€ 5.910.000,00
Health related services	4	€ 1.870.000,00
Money transfer	3	€ 2.260.000,00
School related services	3	€ 1.180.000,00
Security and justice	3	€ 1.160.000,00
Mobility and transportation	3	€ 1.000.000,00
Sport, Environment and Culture	3	€ 580.000,00
Welfare related services	1	€ 340.000,00
Citizens information and participation	1	€ 110.000,00

### **3.2 Characteristics of the recipients of financing**

Both the RP\_SISCOTEL and the NAP\_E-Government-1 were addressed to aggregations of municipalities. Nevertheless, the conditions provided for by the two programmes concerning the composition of the aggregations differ considerably.

SISCOTEL announcements are addressed to aggregations formed by at least 5 municipalities (or at least 2 municipalities, provided that the total number of inhabitants is higher than 10.000). Out of the 76 aggregations funded, 66,3% includes less than 10 municipalities, 18% between 10 and 20, while 15,3% includes more than 20 municipalities.

Therefore, they are mostly small aggregations, constrained by further requirements: the municipalities adhering to an aggregation must be geographically contiguous; municipalities already belonging to aggregations provided for by law (Unions of Communes and Mountain Communities) cannot submit SISCOTEL projects as members of other aggregations; a municipality cannot be member of two different aggregations. This means that the 133 municipalities which adhered to more than one SISCOTEL project did it in different years, maintaining their membership in the same aggregation.

The funding announcement of the NAP\_e-Government-1 does not exclude the possibility that also single municipalities can present their own projects, though they are incentivated to adhere to aggregations. Yet, as we noticed above, the aggregations which were set up do not satisfy any requirement of geographical contiguity. For instance, considering the case of Lombardy, 114 municipalities adhered to projects submitted by aggregations coordinated by municipalities belonging to other Italian regions.

As regards the composition of the aggregations, the two programmes are not too dissimilar. In both cases most municipalities which adhered to the innovation programme are SLGOs, with a higher percentage in the case of RP\_SISCOTEL: 77% of municipalities in the case of SISCOTEL, 72% in the case of national projects.

On the contrary, as regards the dimensions of the funded aggregations, the two programmes differ considerably from each other. In the case of the NAP\_e-Government-1, considering only aggregations to which adhered municipalities of Lombardy, there is only one aggregation with less than 20 members; 2 aggregations having between 20 and 30 members; 2 between 30 and 50, 1 between 50 and 100 and even 4 aggregations joined by more than 100 municipalities of Lombardy.

Among the municipalities of Lombardy which have been funded under the NAP\_E-Government-1, 78 adhered to more than one project, and therefore joined different aggregations. In some cases this results to be critical, since the projects could overlap widely as regards the services to be implemented.

### **3.3 Time span covered by the supporting actions**

The RP\_SISCOTEL covered 5 years between 2001 and 2005, whereas the funding announcement of the NAP\_E-Government-1 was issued only once in 2002. From this point of view, the Regional programme could support through the years the aggregations which were set up, thus enabling the implementation of innovation projects which could gradually evolve.

Beyond this obvious difference, there is another aspect which differentiates deeply the two programmes as regards the time span covered by the supporting actions. The funding announcement for SISCOTELS binds the funded projects to come to an end within three years from their approval. Besides, the announcement requires that the municipalities which adhered to a SISCOTEL continue benefiting from the services delivered by the SSC for at least three years from its activation. This means that an aggregation which submitted a SISCOTEL project can plan its activity on a six-year span.

On the contrary, the NAP\_E-Government-1 only fixes in 2 years the time given to the funded organizations to finish their projects. There are no other constraints as to the continuation of the collaboration after the time limit of two years.

Table 3 below summarizes the main characteristics of the two supporting models we have considered.

**Table 3:** Comparison between RP\_SISCOTEL and NAP\_E-Government-1

	RP_SISCOTEL	NAP_E-Government-1
Supporting model	Co-financing addressed exclusively to aggregations of municipalities	Co-financing addressed to single organizations of Local Government or to their aggregations
Goals of the funding programme	Technological and organizational integration among the partners of an aggregation of municipalities	Implementing technological solutions for the online delivery of services to citizens and enterprises
Characteristics of the recipients of financing	Small to medium size aggregations of small municipalities which are geographically contiguous and share the interest in the activation of a SSC	Large aggregations of municipalities without any constraints as to the modality of adhesion of the partners. The aggregations are not required to continue their collaboration after finishing the implementation of the funded project
Time span covered by the supporting actions	Repeated funding of aggregations for which it is possible to provide a six-year span of activity	Non-recurring funding. The time span of the collaboration corresponds to that of the project (2 years)
Municipalities of Lombardy covered by the programme	63,5% out of the 1546 municipalities of Lombardy	40,9% out of the 1546 municipalities of Lombardy

## 4. A public value evaluation of the supporting policies for e-Government

### 4.1 A public value evaluation model

Public Administration aims at producing value for citizens through services, law regulations, and other actions (Kelly, Mulgan and Muers, 2002). Thus, the use of ICTs to improve government and governance, as implied by E-Government, can be considered as a means to increase the public value produced by Public Administration. Hence, the policies for E-Government can be evaluated according to their ability to increase the Public Administration capacity of producing public value (Kearns, 2004).

In general, a public value-based evaluation must be performed by considering the value that citizens perceive in their interactions with Public Administration (Alford, 2002). Discussing the value of ICTs for Public Administration, (Bannister, 2002) underlines that the definition of value reflects the fact that citizens interact with Public Administration, and therefore with public value, playing different roles. Taking as a starting point the set of roles defined by Bannister, in (Castelnovo and Simonetta, 2007) the following classification of roles has been suggested:

- external roles, that is roles in which citizens receive a value from Public Administration as users of services or participants in democratic processes;
- internal roles, that is roles in which citizens, as directly or indirectly involved in the processes of production of value, nevertheless receive a public value from Public Administration, for instance in terms of good functioning of Public Administration;
- mixed roles, that is roles external to Public Administration and yet involved on different levels in the production of public value, as it is the case of Networked Government.

Since the interactions between citizens and Public Administration can concern both citizens as users and citizens as operators of Public Administration, we can measure public value both from an external point of view (citizens as users) and from an internal point of view (citizens as operators). In the first case, the policies for E-Government can be evaluated with respect to the quality of the services delivered to citizens; in the latter case they can be evaluated with respect to their ability to improve the system of Local Government.

Both the NAP\_E-Government-1 and the RP\_SISCOTEL aim at improving the quality of the services delivered by Local Government; the evaluation of their effectiveness should, thus, be referred directly to their capacity to produce value for the external stakeholders. Nevertheless, for both innovation programmes the improvement of the services quality requires a transformation of the Local Government system; therefore they can be evaluated also with respect to their capacity to produce value for the internal stakeholders.

As we have already observed in section 1, the Italian Local Government system (and the Lombardy Region system in particular) is characterized by high administrative fragmentation and by the preponderance of small municipalities. This makes the system difficult to manage, does not allow to achieve economies of scale and makes it difficult to simplify the relationships between citizens and Public Administration.

Moreover, in Italy the municipalities autonomy is constitutionally granted; therefore the reduction of the fragmentation cannot be easily obtained by means of a forced merger of municipalities.

The implementation of forms of inter-municipal cooperation among SLGOs can be considered as a means to reduce administrative fragmentation, while at the same time safeguarding local autonomies (Hulst and van Montfort, 2007; Council of Europe, 2007). The achievement of this result could be considered as an important element of public value, both directly for the internal stakeholder and indirectly for the external stakeholder.

Considering the fostering of inter-municipal cooperation as an element of public value, we can compare RP\_SISCO TEL and NAP\_E-Government-1 by evaluating the aggregation of municipalities they funded with respect to attributes such as:

- stability, considered as the capacity of a funded aggregation to maintain itself in time;
- attractiveness, considered as the capacity of a funded aggregation to attract new partners as a result of the projects of innovation;
- level of trust among the partners of an aggregation determined by the sharing of an innovation project.

(Kelly, Mulgan and Muers, 2002) identifies three sources of public value for citizens: services, outcomes and trust. Services, outcomes and trust can be considered as elements generating value also as regards the internal stakeholders involved in the management of innovation processes like those supported by both RP\_SISCO TEL and NAP\_E-Government-1.

Generating public value for citizens through services depends on the level of quality with which they are delivered in terms of: service availability; satisfaction levels; importance; fairness of provision; cost. In the case of SLGOs adhering to an aggregation involved in an innovation process, the attributes of availability, satisfaction, importance, fairness and cost can be directly referred to the evaluation of the activity of the aggregation by its members. An aggregation evaluated positively by its members can attract new partners; in these terms, the attribute of attractiveness can be related to the service attributes defined by Kelly, Mulgan and Muers.

As observed in (Castelnovo and Simonetta, 2007) the evaluation of the government as regards achieving the desired outcomes concerns first of all the impact of policies on the environment. In a broader meaning of the concept, the environment includes also the concept of constitutive environment, intended as the local and global system of Public Administration. It follows that the evaluation of the outcomes of different policies supporting the creation of aggregations of SLGOs should consider also their capability to increase:

- the degree of policy integration in homogeneous territorial areas;
- the organizational and operational simplification of the single institutions forming the network;
- the capability to maintain cooperative relations with other administrations, suppliers, associations

All these results can be achieved only if the aggregations that are set up maintain a stability in time. In these terms, the stability attribute can be related to the outcomes evaluation as described by Kelly, Mulgan and Muers.

Finally, trust is the third source of public value defined in (Kelly, Mulgan and Muers, 2002). The trust attribute evaluates the capability of government to increase through its activity the citizens' trust towards Public Administration. By assuming the point of view of the internal stakeholders, in our evaluation of RP\_SISCO TEL and NAP\_E-Government-1 we will consider trust from the point of view of the capability of the aggregations of SLGOs that are set up to make their members willing to make increasing and irreversible commitments towards the cooperation (Doz, 1996). Therefore trust can be evaluated by considering elements such as the reiteration of the members' commitment towards the aggregation (for instance by developing new innovation projects) or the extension of the competencies the members attribute to it.

#### **4.2 An evaluation of the supporting policies for E-Government**

The RP\_SISCO TEL explicitly indicates among its aims the fostering of interorganizational cooperation for the sharing of resources among SLGOs. The funding announcement of the NAP\_E-Government-1 does not explicitly point out such an aim. Nevertheless, discussing the results of the monitoring of the funded projects, in (CNIPA, 2007c) it is explicitly observed that the requirements of the funding programme intended to

determine, as a side result, the establishment of extended forms of cooperation, both horizontal (among Government organization of the same institutional level) and vertical (among Government organization belonging to different institutional levels). We can thus conclude that both programmes share the same goal of improving the system of Local Government through the fostering of the collaboration among municipalities, although they pursue this goal through quite different strategies.

The establishment of inter-organizational cooperation was the primary objective of RP\_SISCO TEL that assumed the funding of technological innovation as a condition to achieve this result. On the contrary, NAP\_E-Government-1 defined as its primary objective the implementation of innovative services for citizens and enterprises through technological innovation (DIT, 2002); inter-organizational cooperation was considered simply as a way to share the results of the funded projects.

At the moment only part of the information necessary for a complete evaluation of the outcomes of the two programmes in terms of stability, attractiveness and level of trust is available. Actually, as observed, many projects funded under the RP\_SISCO TEL are still in their implementation phase (a SISCO TEL must be activated within 36 months since its funding), whereas concerning the projects funded under the NAP\_E-Government-1 the last monitoring data available (April 2007) points out that there are projects that are not concluded yet. Nevertheless, it is already possible to make a first evaluation based on the available data.

In the case of RP\_SISCO TEL, we can obtain some indirect information about the stability of an aggregation and the trust among its partners considering its tendency to activate further innovation projects, while keeping the same composition. This tendency is, in fact, indicative of the partners' will to preserve and strengthen the cooperation. As already observed, a considerable number of municipalities submitted three or, in some cases, even four projects during the period 2001-2005 with the same partners. It is even more important to notice that 288 municipalities adhering to aggregations set up for a SISCO TEL project adhered also to innovation projects funded by the NAP\_E-Government-1. This fact could be considered as an indicator of a positive experience of cooperation within the RP\_SISCO TEL programme.

Due to the requirements of the funding announcement, the same aggregation could submit different SISCO TEL projects only in two cases:

- to extend the aggregation with new members, covering in this way a wider territorial area
- to extend the portfolio of the services delivered by the aggregation's SSC

The adhesion of new municipalities to an existing aggregation can be considered as an indicator of attractiveness of that aggregation which, at the local level, is perceived as the bearer of a positive experience of innovation. Since it depends on the quality of the implemented projects, attractiveness should be referred directly to aggregations and not to funding programmes; however, a funding programme can be evaluated with respect to its capability of supporting and favouring the adhesion of new members to already existing aggregations. From this point of view, RP\_SISCO TEL can be evaluated positively with respect to the attractiveness criterion.

Extending the portfolio of the services delivered by the SSC can be regarded as an indirect indicator of the partners' trust towards the cooperation. An aggregation can, in fact, enlarge its domain of activity only in case its members are satisfied with the results of the cooperation, and this determines the strengthening of the level of trust among the partners. From this point of view, RP\_SISCO TEL can be evaluated positively with respect to the trust criterion too.

The funding of the NAP\_E-Government-1 has not been reiterated in time and, therefore, there are no data that allows to evaluate directly the funded aggregations with respect to stability, attractiveness and level of trust. However, an indirect evaluation of NAP\_E-Government-1 can be performed by considering the results of the programme in the light of the actions CNIPA defined to implement the second phase of the Italian Action Plan for E-Government.

The second phase, that started in 2004 (MIT, 2003) and is still going on, includes also the funding of projects specifically devoted to support the inclusion of SLGOs in the spread of E-Government at the local level (CNIPA, 2007b). On the basis of the observation that innovation at the local level is severely limited by the fact that SLGOs often lack resources and competencies to devote to innovation, CNIPA provides special funding for SLGOs that define cooperation agreements for the activation of Local Alliances for Innovation (ALI), based on the model of inter-municipal cooperation. More specifically, the funding is intended to

support the creation of aggregations of SLGOs, preferably defined on a provincial basis, that are directed towards the activation of SSCs.

The funding for the ALI prescribes the requirement of territorial contiguity for the SLGOs adhering to the aggregations. Since they generally do not satisfy this requirement, the aggregations set up under the NAP\_E-Government-1 programme cannot access the funding of the second phase. This seems to be an implicit acknowledgment of the fact that the aggregation model assumed in NAP\_E-Government-1 cannot support the creation of stable aggregations.

Moreover, in discussing the causes of the delay in the conclusion of the projects funded under the NAP\_E-Government-1 programme, in (CNIPA 2007c) it is observed that the dimension of the aggregation proved to be a critical element: actually the data shows that aggregations including more than 30 municipalities are more prone to delays. With respect to the case of Lombardy, out of the 10 projects involving aggregations of municipalities, 3 were presented by aggregation with less than 30 members, whereas 7 have more than 30 members (actually, 4 aggregations have more than 100 members).

From this point of view, it is CNIPA itself that recognizes that there have been problems with the aggregation model assumed in NAP\_E-Government-1, not only as regards the lack of a territorial basis for the aggregations, but also as regards their size.

The same critical observation can be made with respect to the attribute concerning trust; since the aggregations were set up with the goal to share the costs for the implementation of technological solutions allowing the online delivery of services for citizens and enterprises, once the systems have been implemented there is no reason for the partners to keep the cooperation. In this case the aggregations have been set up mainly for opportunistic reasons and without the aim of establishing stable trust relations among the partners.

## **5. Conclusions**

In the paper we considered two different programmes that support innovation at the local level and compared them with respect to their impact on the system of Local Government of the Lombardy Region, Italy. The programmes we considered are: the funding for E-Government projects, according to the first phase of the Italian Action Plan for E-Government (NAP\_E-Government-1) and the Regional Plan for the activation of Inter-organizational Information Systems for Local Government (RP\_SISCO TEL). Both programmes have been based on the collaboration among municipalities as a means to foster innovation at the local level; for this reason we suggested an evaluation of the two programmes based on the properties of the aggregations that are set up to access the funding.

Considering E-Government as the use of ICTs to enable innovative forms of government and governance we suggested that cooperation among Small Local Government Organizations could represent a possible solution for the problem of administrative fragmentation that affects many countries of the European Union. However, to achieve this result the aggregations that are set up should be stable in time, strengthen the trust relations among the partners and attract new members. Thus, considering stability, attractiveness and trust as sources of public value, we compared the two E-Government programmes with respect to the stability, the attractiveness and the level of trust characterizing the aggregations of SLGOs they funded.

Both programmes funded the acquisition of hardware and software systems as well as the development of local telecommunications infrastructures. Hence, the different outcomes of the two innovation programmes do not depend on the object of the funding. Rather, what makes the two programmes different are the requirements they stated for accessing the funding. RP\_SISCO TEL defined requirements concerning the integration among the partners of the cooperation (through the activation of SSCs), whereas NAP\_E-Government-1 did not state any organizational requirement, simply assuming that inter-organizational cooperation can be fostered by supporting the development of interoperable systems.

The evaluation performed with respect to the data concerning Lombardy pointed out that, to achieve the result of fostering inter-municipal cooperation, it is not enough to implement a policy oriented towards supporting technological innovation. If the goal is the transformation of the Local Government system, and not simply the automation of the administrative procedures or the definition of new channels to access services, what is needed is a model that supports combined processes of technological and organizational innovation, as it should be in all the innovation processes typical of E-Government.

## References

- Alford, J. (2002), "Defining the client in the Public Sector: a social-exchange perspective", *Public Administration Review*, 62, 3.
- Bannister, F. (2002), "Citizen Centricity: A Model of IS Value in Public Administration", *Electronic Journal of Information Systems Evaluation*, 5, 2.
- Beretta, C., Bresciani, L., Ferrari, E., Zuffada, R., (2006), The CRS-SISS Project: a Regional Strategy for e-Health, in Cunningham, P. and Cunningham, M. (Eds), *Exploiting the Knowledge Economy: Issues, Applications, Case Studies*, IOS Press, Amsterdam
- Castelnovo, W., Simonetta, M. (2007) "The Evaluation of E-Government projects for Small Local Government Organisations", *Electronic Journal of E-Government*, 5, 1.
- Castelnovo, W. Simonetta, M. and Lasi, A. (2006), "Secure access to Local Government online services: the case of Lombardy", in Cunningham, P. and Cunningham, M. (Eds), *Exploiting the Knowledge Economy: Issues, Applications and Case Studies*, IOS Press Amsterdam.
- CNIPA (2007a), *E-Gov per le Regioni e gli Enti Locali*, [online], [www.cnipa.it](http://www.cnipa.it)
- CNIPA (2007b), "Avviso per il cofinanziamento di progetti proposti dalle Alleanze Locali per l'Innovazione (ALI)", *Gazzetta Ufficiale*, n. 31, 7 febbraio 2007.
- CNIPA (2007c), *Monitoraggio dei progetti di E-Government - Fase 1. Quinto rapporto di sintesi, Aprile 2007*, [online], [www.cnipa.it](http://www.cnipa.it)
- Council of Europe (2007), *Draft Report on Inter-Municipal Cooperation*, Directorate General I - Legal Affairs, Directorate of Cooperation for Local and Regional Democracy, Council of Europe, 2007.
- CRC (2003), *Primo Rapporto sull'Innovazione nelle regioni d'Italia* [online], [www.crcitalia.it](http://www.crcitalia.it)
- CRC (2006), *Quarto Rapporto sull'Innovazione nella Regione Lombardia – 2006*, [online], [www.crcitalia.it](http://www.crcitalia.it)
- DIT (2002), Presidenza del Consiglio dei Ministri - Dipartimento per l'Innovazione e le Tecnologie, "Avviso per la selezione di progetti proposti dalle Regioni e dagli Enti locali per l'attuazione dell'e-Government", *Gazzetta Ufficiale*, n. 78, 3 April 2002.
- Doz, Y.L. (1996), "The Evolution of Cooperation in Strategic Alliances: Initial Conditions or Learning Processes?", *Strategic Management Journal*, 17, 1996: 55-83.
- Hulst, R. and van Montfort, A., (2007), *Inter-municipal Cooperation in Europe*, Springer, Dordrecht
- IDABC (2007), eGovernment Factsheets – Italy, [online], <http://ec.europa.eu/idabc/en/chapter/401>
- Kelly, G., Mulgan, G., Muers, S. (2002), "Creating Public Value: An Analytical Framework for Public Service Reform", Discussion paper prepared by the Cabinet Office Strategy Unit, United Kingdom.
- Kearns, I. (2004), "Public Value and E-Government", Institute for Public Policy Research (ippr).
- MIT (2003), Ministero per l'Innovazione e le Tecnologie, *L'e-Government nelle Regioni e negli Enti locali: Il fase di attuazione*, [online], [www.cnipa.gov.it/site/\\_files/egov\\_Fase2.pdf](http://www.cnipa.gov.it/site/_files/egov_Fase2.pdf)
- OECD (2003), "The E-Government imperative: main findings", Organisation for Economic Cooperation and Development, [Online], [www.oecd.org/dataoecd/60/60/2502539.pdf](http://www.oecd.org/dataoecd/60/60/2502539.pdf)
- Regione Lombardia (2002), E-Lomb@rdia - from e-Government to e-governance, [online], [http://www.artigianato.regione.lombardia.it/sito-old/documenti/e-lombardia\\_ing.pdf](http://www.artigianato.regione.lombardia.it/sito-old/documenti/e-lombardia_ing.pdf)
- Regione Lombardia (2005), *BANDO Misura 2.3 lett. a) - Doc.U.P. - Piano regionale di attivazione dei sistemi informativi di comunicazione telematica degli enti locali – SISCO TEL – 2000-2006*, [online], [www.ors.regione.lombardia.it](http://www.ors.regione.lombardia.it)
- Regione Lombardia (2008), *Lombardia Integrata*, [Online], [www.regione.lombardia.it](http://www.regione.lombardia.it)

