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# **INTERGOVERNMENTAL DATA SHARING**

## **A CASE STUDY OF THE CBE PROJECT**

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## ABSTRACT

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Despite the increased attention for the barriers that hinder intergovernmental data sharing, the number of cases being studied and the theories used to explain the development of intergovernmental data sharing projects remains limited. Therefore, this paper elaborates on the results of a case study about the Belgian Crossroads Bank for Enterprises (CBE). The CBE is a federal database registering official company data. Federal, regional, provincial and local government administrations have access to the CBE via a number of ICTs. Our study focused on the adoption and the use of the CBE data by local governments.

Our analysis led to the development of a model in which the factors that influence the use of the CBE by local governments are depicted. Thereafter, we apply Bekkers' framework consisting of four ideal-typical policy approaches (a rational, a political, a cultural and an institutional policy approach) to explain our empirical findings.

The main conclusion is that intergovernmental data sharing is a dynamic process; both the characteristics of the project and local governments interact with each other, making the development of intergovernmental data sharing an incremental process of muddling through.

**Keywords:** Crossroads Bank for Enterprises - policy approaches - intergovernmental data sharing

## I. INTRODUCTION

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The historical shift towards a decentralized federalism marks an important change in how public policy and public management function in many countries<sup>1</sup>. A variety of government agencies at different levels of government (in some cases also private actors are involved) are often responsible for one government service. In terms of the realization of an electronic government, such an institutional environment constrains intergovernmental management of projects such as the managing of intergovernmental data sharing projects.

Information or data sharing can be defined as *the transference of information from one unit to another while information integration involves data contribution by agencies to a common data network for use by multiple agencies and individuals*. (Pardo, Gil-Garcia & Luna-Reyes, 2008). Literature about both themes has focused on several issues.

A number of authors have elaborated on the benefits of government information sharing and integration. Layne & Lee (2001: 131) state that data sharing is an important condition for transforming government towards a (first) vertically and (later) a horizontally integrated government. Wolken & Landsbergen (1998) mention that *sharing information reduces the paperwork burden on the citizen, streamlines work processes, makes more effective use of individual and shared information technologies, and enriches the formulation, implementation and evaluation of policy*. Dawes (1996) identifies three categories of benefits: technical (e.g. the streamlining of data management), organizational (e.g. the expanding of professional networks) as well as political (e.g. the improvement of public accountability).

Other research<sup>2</sup> has elaborated on the barriers that hinder effective and efficient information sharing between governments. This has led to different classifications of groups of barriers. In a recently published review, Gil-Garcia, Ae Chun & Janssen (2009) divide the main barriers in technical, organizational, political and legal categories. Yang & Maxwell (2011: 164-175) by contrast distinguish three perspectives from which we can study these barriers: a technological, organizational and political/policy perspective. Political barriers refer to issues such as *privacy legislation* and *ambiguity about statutory authority*. Among organizational barriers there are a *lack of trust, experience and resources*. Examples of technical barriers are *hardware or software incompatibility, data sharing standards*, etc. (Wolken & Landsbergen, 2001: 208-209).

In this regard, we notice a shift in the issues being addressed to explain this phenomenon: from merely focusing on technical issues, the scientific debate has moved towards a debate that also addresses organizational and institutional aspects alike<sup>3</sup>. We acknowledge the necessity of this shift but also stress the need for a more diversified use of theoretical models in order to explain the development of intergovernmental data sharing projects and the participation of government agencies in these projects. Moreover, we agree with Meijer & Bannister (2009) who stated that *the failure to use more general theories from Public Administration limits our understanding of the specific characteristics of innovation processes in public sector*<sup>4</sup>. Although some authors already addressed political as well as

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<sup>1</sup> In literature, this shift is characterized by an evolution in the concepts used to describe how public policy and public management works. Federalism was used as a concept referring to constitutional, institutional and legal framework on which public policy decisions are grounded. Intergovernmental relations points to the prominence of key actors whose attributes, actions and attitudes give specific shape to important policy choices. Intergovernmental management incorporates domains of networking, coping and problem-solving that were inherent in program implementation processes (Agranoff, 1986; Wright, 1990).

<sup>2</sup> Gil-Garcia et.al. (2009) published an overview of relevant literature.

<sup>3</sup> Meijer & Zouridis (2006: 5-6) made a similar remark regarding the “general” development of an electronic government.

<sup>4</sup> Such a connection is needed as Williams, Dwivedi, Lal & Schwarz (2009) state that - when referring to the popularity of Rogers’ (1983) Diffusion of Innovation Theory and Davis’ (1989) the Technology Acceptance Model - adoption literature becomes more and more homogenous in terms of the applied conceptual models. Consequently Meijer & Bannister (2009) propose to connect studies about public innovation to mainstream theories in Public Administration.

institutional barriers next to technological barriers in order to get a better understanding of intergovernmental data sharing, the existence of these barriers has not yet been sufficiently explained by using theoretical assumptions about how public policy is formed. Therefore, we chose to apply Bekkers' (2007) framework consisting of four policy approaches. We believe that using four distinctive policy approaches - a rational, a political, a cultural and an institutional policy approach - as lenses will help us to better explain the development of intergovernmental data sharing and the participation of government agencies in intergovernmental data sharing projects. This leads to the formulation of one key question: How can the use of several policy approaches explain the (1) development of and (2) the participation of government agencies within intergovernmental data sharing projects?

In order to answer this question, we drew on the empirical findings about a case study (see Vander Elst, Rotthier & De Rynck, 2011a; Vander Elst, Rotthier & De Rynck, 2011b) of the Belgian intergovernmental data sharing initiative: the "Crossroads Bank for Enterprises" (CBE). The CBE is the Belgian federal database containing companies' official information by assigning all firms a unique single business number. As there is *a need for further investigation that specifically focuses on local government agencies* (Akbulut, 2003), our study focused on the adoption and use of the CBE data by local governments. For a number of reasons, the CBE project is an interesting case. Firstly, although municipalities can use the CBE today, the project has not reached its final stage. Discussions on whether more data need to be incorporated and the ways in which the database is electronically accessible for local governments are still being discussed and will certainly change over time. In this regard, a study of the CBE project might generate insights into the development of intergovernmental data sharing projects over time. Secondly, Flemish municipalities are not obliged to adopt the CBE data. In this way, we can analyse the motivations of local governments that led to adoption as well as non-adoption of the CBE.

This article is organized into five sections, including the introduction above. In section two, we give an overview of the research methods used to analyse the CBE case. In section three, we present our theoretical model in which the relations that determine the development of the CBE and the use of the CBE by local governments are depicted. The relations represented in this theoretical model will be explained in section four by using Bekkers' (2007) four policy approaches. Finally, section five summarizes our main findings.

## **II. RESEARCH STRATEGY**

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Data were gathered from multiple sources: a survey, a document analysis, and interviews organized and conducted during October 2010 until January 2011.

An exploratory survey was conducted to quantitatively assess the use of company data (and/or databases) by local authorities. Firstly, because local authorities are not obliged to use the official CBE data, a survey was necessary to determine whether and to what degree local governments make use of the CBE and other public and private company databases. Secondly, it was not clear which services delivered by local governments were supported through the use of the CBE data.

The survey was sent electronically to 926 local civil servants from all 308 Flemish municipalities. We selected local civil servants whom we expected - considering their function - to use company data. The respondents were asked to answer four simple questions.

- Does your municipality use company data? Why? Why not?
- Which company data source do you use?
- Which departments of your municipality use company data?
- Could you briefly describe the reasons for which you need company data?

Table 1. List of survey questions

The response rate was 29%: 268 local civil servants completed the questionnaire. Descriptive statistics and crosstabs were used to analyse the data.

Qualitative data were gathered from the study of relevant policy documentation, websites and in-depth interviews. A study of relevant policy documentation and websites was held to analyse the historical background of both the CBE and the Flemish CBE (see below), the political choices that shaped the intergovernmental project, the jurisdictional framework and the role of intermediary organizations.

We also conducted nine interviews with employees working at different agencies and intermediary structures responsible for the disclosure of the (Flemish) CBE. During these interviews, we gathered information about the CBE data, the ICTs that transmit the CBE, and the historical background of both databases, the quality of the data, the usefulness of the ICTs, developments concerning the future role of both databases and the role of intermediary organizations.

Finally, semi-structured interviews were conducted with 15 civil servants employed in different municipal services from different municipalities. The overall majority concerned local civil servants working in local economic services and financial services. During these interviews, we gathered information about the adoption, the implementation and the use of the CBE and the Flemish CBE by local civil servants and the effects produced through the use.

### III. DESCRIPTION OF THE CBE CASE AND THE USE OF THE CBE BY FLEMISH LOCAL GOVERNMENTS

Figure 1 represents our theoretical model in which the relations that determine the adoption, the use of the CBE-data by Flemish local governments and the outputs and outcomes generated by the use are depicted.

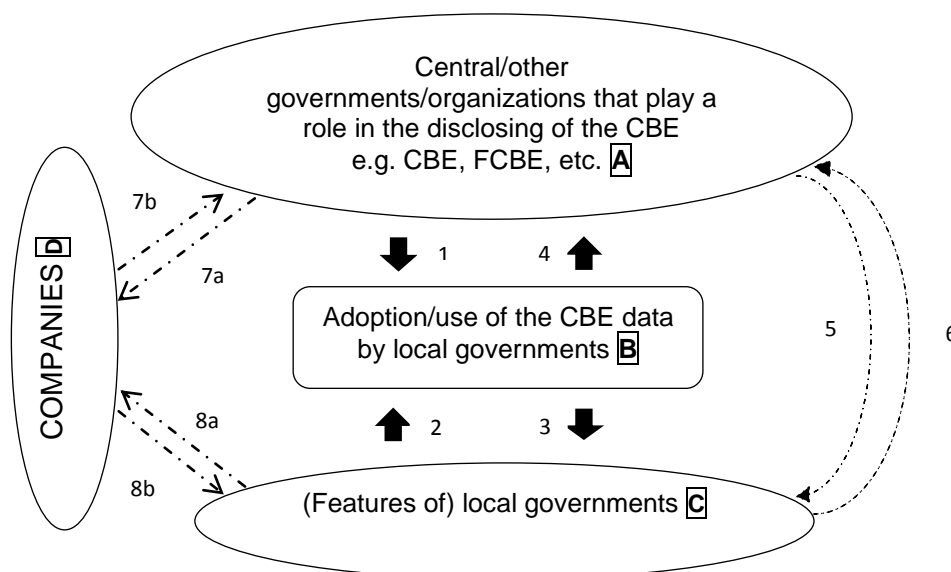


Figure 1: The use of the CBE by local governments

Box “A” represents the “supply side” and concerns the actors who were involved in the development and the disclosing of the **federal CBE**. The **federal CBE** was established in 2002 and is a central electronic database (an authentic source) containing comprehensive identification data related to businesses and their “establishment units” (i.e. business locations) such as the activities executed by a company, the legal form, the address. The CBE was developed as a way to lower the administrative burden for companies and to increase the efficiency of public agencies delivering services to companies.

The **Flemish regional government** adopted a copy of the federal CBE to develop its own database containing company data. The Flemish CBE (**FCBE**) enriches this copy with additional “Flemish” company data (e.g. geo references of companies’ addresses). These enrichments are not initiated in the federal CBE.

Next to the CBE and FCBE, a **number of private and other public actors** have developed new applications based on the CBE or FCBE data: the **provincial government** of the province West-Flanders developed the “Digital Economic Map” application for all its municipalities, The **intermunicipal organization** “Leiedal” has developed the “Company Guide” application and multiple private ICT service providers have connected the applications they designed for local governments (e.g. a Customer Relation Management (CRM) application) to the CBE and FCBE.

- Arrow “1” depicts the technical, organizational, juridical, political, institutional, etc. features which characterize the disclosure of the CBE, FCBE and the making available of other applications. These characteristics influence the use of the CBE and/or FCBE data by local governments. For instance, our analysis indicated that data quality issues influenced the use.
- Arrow “5” represents the relations between the actors represented in box “A” and Flemish local governments. These relations are characterized by institutional, legal, political, etc. features. For instance, Flemish local governments are not obliged by central governments to adopt the CBE and/or FCBE.
- Arrow “7a” represents the delivery of services (for which the CBE and/or FCBE data are used) of federal, Flemish and other (except local) government administrations (represented in box “A”) towards companies.

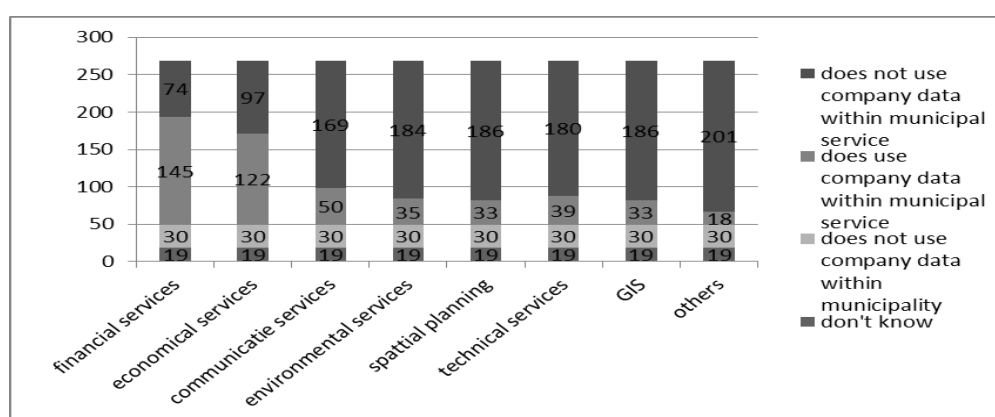
Box “C” shows all **Flemish local governments** which have optional access to the CBE, FCBE and ICT service providers’ applications. Some local governments can also adopt the “Company Guide” application or the “Digital Economic Map” application.

- Arrow “3” represents local governments’ characteristics which influence the use of the CBE and/or FCBE. For instance, local civil servants’ technical skills influenced the use of the CBE and/or FCBE transmitting ICTs.
- Arrow “8a” represents local governments’ service delivery towards companies.
- Arrow “6” represents the relations between Flemish local governments and the actors represented in box “A”. These relations are characterized by institutional, legal, political, etc. features. For instance, although the FCBE was initially developed for Flemish administrations only, Flemish local governments also demanded access to the FCBE.

Box “D” represents the companies who are legally obliged to register information in the federal CBE.

- Arrow “7b” represents the interactions between companies and the actors represented in box “A” (for instance: input streams of company data within the federal CBE<sup>5</sup>, demands for the reduction of administrative burden, etc.).
- Arrow “8b” represents the interactions between companies and Flemish local governments (for instance: demands for the reduction of administrative burden, etc.).

Box “B” concerns the adoption and the use of the CBE, the FCBE and other applications that build upon the CBE and/or FCBE by Flemish local government administrations. Chart 1 is based upon the survey results and gives an overview of the municipal services which use company data. The respondents indicated that company data are mostly used by the local financial and economic services of a municipality.



Graph 1: Municipal services using company data

Official usage figures regarding the use of the CBE and FCBE indicate that local governments mostly have adopted the FCBE transmitting applications. Out of 308 Flemish local governments, more than 200 local governments adopted one or more applications transmitting the **FCBE**<sup>6</sup> while fewer than fifty municipalities use one or more **CBE Management Agency** application(s)<sup>7</sup>. As regards the initiatives of intermediary actors, 10 out of the 13 municipalities that participate in the “Leiedal” intermunicipal partnership have adopted the “**Company Guide**” application, 16 West-Flemish municipalities have adopted the “**Digital Economic Map**” and about 40 municipalities have adopted private **ICT service providers’** applications that are directly connected to the FCBE or CBE.

With regard to the interviews: 10 civil servants have adopted and still use the CBE and/or FCBE data, 2 civil servants have not adopted the CBE and/or FCBE data and 3 civil servants had adopted and used the CBE and/or FCBE data but stopped using the data after some time.

<sup>5</sup> Simultaneously with the development of the CBE, the federal government also restructured companies’ starting procedures. One aspect of this reform comprised the establishment of private “Enterprise Counters” which were - along with a limited number of other federal administrations - assigned authority by federal law to input data in the CBE.

<sup>6</sup> The **Flemish eGovernment Coordination Unit** developed the FCBE web interface, FCBE web services and FCBE files and reports to make the FCBE available to Flemish regional, provincial and local administrations.

<sup>7</sup> Local governments (along with all federal, regional and provincial administrations) have (optional) access to the federal CBE by multiple ICTs. The federal CBE Management Agency developed three ICTs which transmit CBE data: the CBE web interface, the URL Public Search and CBE web services.

- Arrow “3” represents the effects produced through the use of the CBE and/or FCBE on local governments. We notice positive as well as negative side-effects: some local civil servants we interviewed indicated that the CBE and/or FCBE data provides an improvement concerning the execution of their tasks, in a number of cases the CBE led to the development of new services towards businesses (e.g. newsletters, etc.) and some locale civil servants stated that the CBE made the organization of existing service delivery more effectively (e.g. the collection of local business taxes). However, civil servants also reported negative side-effects: more time spent on the maintenance of company lists and the checking of the CBE and/or FCBE data, information overload, etc. which in a number of cases led to non-use of the CBE and/or FCBE data.
- Arrow “4” represents the effects generated by the use on the “supply side” represented in box “A”. For instance, the development of the Company Guide application was inspired by the use of the CBE data by local governments.

As our descriptive analysis of the CBE project led to detailed insights with regard to the development of the CBE, its derivative projects and the use of the CBE and/or FCBE data by Flemish local governments, this also raises new questions such as: How can we explain the development of the federal CBE and a Flemish CBE? Why did other provincial and inter-municipal actors start developing new applications? Why did some municipalities adopted the CBE and/or the FCBE and others not? Why did local civil servants stop using the CBE? Etc.

To answer these and other questions, the following section starts with Bekkers’ (2007) framework of different policy approaches that we will use to explain the relations depicted in our theoretical model.

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#### **IV. EXPLAINING THE CASE OF THE CBE**

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##### **4.1. Bekkers’ four policy approaches**

In order to get a better understanding and to better explain (the outcomes of) public policy (processes), Bekkers (2007) developed a framework of different policy approaches: a rational, a political, a cultural and an institutional policy approach based on literature about public policy and policy processes. These policy approaches are ideal typical; they consist of a normative view about how public policy might take form.

- In the rational approach, policy is defined as a collection of goals and means that are used following certain time choices, deposited in a plan or decision.
- The political policy approach defines policy as the temporary codification of a consensus or power relations in a policy network.
- In the cultural approach, policy is considered as a primarily social construction aimed at providing meaning that fires one’s imagination.
- In the institutional approach, policy is defined as the result of a rule-guided interaction and embodiment of a set of rules.

Based on seven distinctive features, Bekkers compares the four policy approaches. Table 2 summarizes the content of all seven elements for all four approaches.



Approach/element	Rational approach	Political approach	Cultural approach	Institutional approach
1. Dominant paradigm	Goal rationality	Power and interest	Providing meaning by communicating and other forms of interaction	Rule-guided, path dependent interactions between parties
2. Vision on world and humans	Homo economicus, focused on rational choices / satisfying solutions Mechanistic perspective	Struggle in arenas and networks, aimed at preserving interests and influencing dependencies.	Social construction of reality through discourse coalitions. Society as a reservoir of meanings.	Institutions and rules influence the behaviour of a society and the interactions between actors and the roles they fulfil.
3. Instrumentation	Policy instruments as a toolkit. Importance of a program/plan	Policy instruments as power resources. Network management	Strategies for framing and re-framing Communities of practice Project management Symbols as instruments for making meaning.	Path dependency of choices for policy instruments. Policy style influences the choice for instruments.
4. Evaluation	Efficiency, effectiveness and cohesion	Preserving own interests. Obtaining a basis and/or support of parties.	Support Capacity for learning and change	Legitimacy based on a “ <i>logic of appropriateness</i> ” Isomorphism Learn and change capacity
5. Knowledge and information	Policy theory and policy field model Government as information processor. Managerial rationalism	Knowledge, information and ICT as power resources. (“resource politics”)	Interpretative schemes such as symbols, images or stories <i>Automation of bias</i>	Knowledge and information are rule-guided, selective interpretations of reality which also determine the design of information systems.
6. Policy process	Linear character of phases and actions which form the policy cycle.	Policy formulation and execution are interweaved. Incrementalism <i>Garbage can</i>	Policy processes obtain their meaning and are formed within “discourse coalitions” and in “language games”.	Rules structure the content and the progress of policy processes and the roles adopted by actors.
7. Role of politics	Primacy of politics with the stress on formal political institutions and rules. Administration and politics are separated.	Politics as a struggle for power. Politics as managing networks.	Politics as a provider of meanings. Fragmentation and socialization of politics. Politics as a facilitator of processes of providing meaning and establishing political space.	Politics as an institution (the state) for a rule-guided authoritative allocation of values. Politics as the personification of a “ <i>logic of appropriateness</i> ”.

Table 2: Policy approaches and their characteristics (Bekkers, 2007) (Translated by the authors)

In the following paragraphs, we will use each policy approach as a lens to analyse the relations/interactions that shaped the development, the adoption and the use of the CBE and/or FCBE data by local governments as presented in our theoretical model. This leads to a series of research questions which will structure our analysis.

▪ **Using the rational policy approach:**

Can the development of the CBE and/or the FCBE be considered as linear process in which the objectives were formulated in terms of a more efficient and effective government (service delivery)? Are local governments' decisions to (not) adopt and/or to use the CBE and/or the FCBE taken based on a rational (cost/benefit) analysis? Was the Flemish government's decision to develop its own FCBE based on rational arguments?

▪ **Using the cultural policy approach:**

Did images with regard to the realization of an eGovernment determine the development of the CBE and/or the FCBE? Did the environment as *a reservoir of meanings* influenced the perceptions of local civil servants to adopt the CBE and/or FCBE?

▪ **Using the political policy approach:**

Did the interests, power resources and dependencies and/or independencies of the different stakeholders influence the development of the CBE and/or the FCBE project? Did the interests and power resources of civil servants influence the adoption and/or the use of the CBE and/or FCBE?

▪ **Using the institutional policy approach:**

Did rules and historical practices structure the development of the CBE and/or FCBE projects? How did rules and other institutions influence the decision of local governments to adopt and/or to use the CBE and/or FCBE?

#### **4.2. Explaining the development of the CBE and/or FCBE by using four policy approaches**

Both the federal and Flemish government vision on eGovernment emphasizes the continuous improvement of service delivery towards citizens and companies (Coenen, 2006): *The objective is to assure fast and **efficient** government services towards citizens and companies based on an integrated manner.* (Federal Department ICT, 2011). Thereby, the development of multiple authentic sources (for instance: the CBE) is considered as a key success factor: *Authentic sources comprise information that can maximally be shared and (re)used. This leads to a reduction of costs, makes integrated service delivery possible and reduces the chances for incorrect information and unnecessary work.* (Flemish Government, 2005: 21). With regard to the development of a federal CBE, this implies the reduction of the administrative burden towards companies by registering company data into one central database and by offering government agencies electronic access to the CBE. Looking at the characteristics of the four policy approaches, the proclaiming of a more efficient government service delivery through the development of authentic sources clearly reflect **a goal rationality**.

Nonetheless, the plea for an integrated government that represents a more efficient government can also be interpreted as an **image** that has been **framed** by both the federal and Flemish government, as reflected in official policy documents, for instance: *eGovernment has an integrated government as*

*leitmotiv*. (Flemish government, 2006). This corresponds with Bekkers' (2008) opinion who stated that within the **discourse** of an electronic government, the myth of progress and manufacturability plays an important role. In order to reach the desirable objective of an integrated government, actors (ministers, civil servants, pressure groups, academics) have also framed the development of authentic sources as the instrument to realize an integrated government. In this regard, an authentic source can be considered as a **common image** about how the objective of an integrated government can be realized and which is necessary in order to obtain support. This need for support is reflected in official policy documents: *It seems to me a justified ambition to analyse how we can persuade local governments of the necessity to use authentic sources.* (Flemish Government, 2010a) or - in other words - government policy will be considered as successful when all administrations are convinced of the fact that the use of authentic sources is absolutely necessary. This clearly indicates the relevance of **the cultural policy approach** in which government policy is evaluated based on the extent to which the policy actors have succeeded in creating a common image about how the objective could be realized (Bekkers, 2007: 75-76).

The **development** of the CBE project clearly seems an **incremental** process. Firstly, the number of actors (e.g. limited liability company, non-profit organizations, etc.) that are uploaded and initiated in the CBE still increases. For instance, in 2007, all "liberal professions" were uploaded. Secondly, the use of the CBE by government administration made clear that the CBE dealt with comprehensive data quality issues due to the varying data quality of the databases that were merged to create the CBE<sup>8</sup> and due to the complex processes to input data into the CBE. These problems implied the start of an intensive programme led by the Federal Department of Economy to increase the CBE data quality. Thirdly, the rise of new technologies (e.g. web services) led to the development of new ICTs transmitting the CBE. Last but not least, the opportunities with regard to how the CBE can further decrease the administrative burden are still being discussed. For instance, it took quite some time to discover the opportunities the CBE offered for local governments with regard to the collection of local business taxes.

To a less extent, this incremental process can be explained by using the **rational approach**. Looking at the characteristics of the rational approach, one can state that due to a **bounded rationality**, not all possible opportunities and (data and technical) problems could be identified at the start of the project. Nonetheless, the incremental character of the CBE project can mainly be explained by using elements of the political policy approach. Firstly, the political policy approach considers policy processes as **muddling through** and public sectors decisions do not imply major steps forward but are characterized by many small steps forward (Bekkers, 2007: 68). This is also reflected in the case of the CBE. For instance, Enterprise Counters (private organizations) are authorized by federal law to input information about starting companies in the CBE. From the beginning of the project, companies have had to pay for these services. This resulted in many companies which did/do not fulfil their obligations (e.g. their records in the CBE by visiting an Enterprise Counter). This led to the idea of an electronic access ("Private Search") for companies to change their information in the CBE free of charge. In financial terms, this decision would have been catastrophic for the Enterprise Counters. Consequently the associations of the Enterprise Counters started a lobby campaign to reduce the possibilities of the "Private Search" application. In summary, this application ended up being an electronic point of access enabling companies to make only minor changes to their CBE data. Secondly, the **political**

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<sup>8</sup> In fact, the CBE is established by the merging of multiple databases of different federal administrations (e.g. the federal Department of Finance, VAT administration etc.) which were/are responsible for the administrative completion of starting companies. Local governments (along with all federal, regional and provincial administrations) have (optional) access to the federal CBE by multiple ICTs.

**policy approach** considers the **evaluation** of policy as the extent to which participants perceive their interest as being preserved. In the example mentioned above, this is reflected by the fact that the Enterprise Counters have protected and maintained the exclusive right to input certain data of starting companies.

Looking at the establishment of a Flemish CBE, we notice a number of elements from the rational, political and institutional approach. Firstly, some of the employees of Flemish eGovernment Coordination Unit interpreted the establishment of the Flemish CBE from a rational standpoint. These respondents stated that, considering the fact that Flemish agencies are not allowed to add to the federal CBE, the most **efficient and effective solution** was to develop a FCBE.

Secondly, other respondents perceived this decision from an **institutional point of view**. Generally spoken, institutional features seem to have a large influence on how eGovernment develops within the Belgian, Flemish and local policy context. Because of the fact that an intergovernmental dialogue or cooperation is often not desirable or achievable (or appropriate), eGovernment developed mainly between the **jurisdictional boundaries and competences of each government level or organization**. The development of a Flemish CBE seems to confirm this scenario. For instance, federal laws strictly assign authority to only a small number of federal entities that can input data in the CBE. The Flemish government however also wanted to input data on top of the CBE data. Because there is no such possibility, the Flemish government decided to work with its own CBE copy (FCBE) that could have as many data as they wanted added to it.

Thirdly, the development of a Flemish CBE can also be studied from a **political policy approach**. From this perspective, other elements play a key role: government agencies that do not want to become **dependent** on other agencies' data or not allowing other government administrations in the management and further development of "their" authentic sources. Within this approach, **information and ICT** are clearly considered as **power resources**, and their owner (federal government) is not willing to lose control over these resources.

The **institutional approach** can also be used to explain the development of intermediary initiatives of the province West-Flanders and the "Leiedal" intermunicipal partnership. The fact that Flemish municipalities were confronted by a **degree of errors** within the CBE and/or FCBE but also need other company data (next to the official CBE company data), led to the desire of local governments to make corrections/enrichments in to the CBE. On one hand, this led to a growing effort of the federal CBE management agency to improve the data quality and to input more data into the CBE. On the other hand, this also led to the development of new applications such as the Company Guide which can be posted on municipal websites and in which companies can further input other data and verify their official CBE-data. This evolution indicates that intergovernmental data sharing is a **dynamic process** in which the initial features of the project change over time (or in which new projects arise) due to a permanent **interaction with structural and cultural features** of the participating organizations. On their turn, these organizational features change through the participation in intergovernmental projects, in this case the use of the CBE and/or FCBE.

#### **4.3. Explaining the adoption and use of the CBE at the local level**

The adoption as well as non-adoption decisions made by local civil servants can be explained by elements of all four of Bekkers' policy approaches.

The majority of the local civil servants attached certain **advantages** to the use of the CBE-data. In general, some civil servants working at the local economical services considered the use of the CBE and/or FCBE data as a way to improve communication towards companies, to support the organization of local economic campaigns, to more efficiently organize the delivery of permits towards companies while local civil servants of the financial services connected the use of the CBE and/or FCBE to a more efficient and effective collection of local business taxes. As regards these considerations, **knowledge and information** are clearly considered as **means** to realize a more effective and efficient business friendly service delivery. In other words, these civil servants perceived the CBE and/or FCBE data as necessary to improve local government service delivery towards companies.

A number of civil servants also addressed the **price of using the CBE and FCBE**. Municipalities can use the CBE for free and this implies an interesting cost reduction for local governments considering the fact that the self-collection of company data or the purchase of private company databases is an expensive affair.

Considering the fact that within the rational policy approach, policy is evaluated in terms of efficiency and effectiveness, the cost price as well as the prospect of realizing a more efficient and effective local economic policy by using the CBE and/or FCBE indicate that **rationally driven factors** influenced local civil servants' adoption of the CBE and/or FCBE.

However, a number of local civil servants decided to simply not adopt the CBE and/or FCBE, decided to stop using the CBE and/or FCBE data after some time or decided to adopt the CBE and/or FCBE data based on other arguments in comparison to the abovementioned rationally driven choices. These choices can be explained by using elements of other policy approaches.

Findings point out that both positive as well as negative adoption decisions can be explained from a **cultural policy approach**. This is proven by the fact that local civil servants had constructed different **perceptions or images** about the CBE and FCBE. For instance, we noticed different positive and negative perceptions with regard to the quality of both the CBE and FCBE data which had a large impact on the use of the CBE and/or FCBE. These perceptions were strongly influenced by **external influences**. In this regard, we refer to Korteland & Bekkers (2007) who stated that - when referring to Berry & Berry (1990) and Rogers (2003) - the adoption of innovations is facilitated by geographical and cultural proximity: *organizations tend to copy innovations from their neighbours and from organizations that share the same frame of reference*. In this case, it seems that among Flemish local civil servants two different "**frames of references**" have emerged. One frame of reference that considers the data quality as very poor and which considers other company databases as more reliable. The second frame of reference considers the CBE data as the best alternative for possessing an overview of company information.

How can we explain the negative perception about the CBE data quality?

The real degree of errors is estimated at approximately 3 to 10 per cent (Flemish government, 2010b). However the (official) degree of errors can only partly explain the negative perception about the CBE and/or FCBE applications because some of the respondents estimated a degree of errors of over 50 per cent. The **institutional approach** can explain this striking finding. In the institutional approach, **knowledge and information** are considered as **rule-guided selective interpretations** of reality which determine the design of information systems (Bekkers, 2007). With regard to the CBE case, this is reflected by the fact that the CBE data are being input by federal agencies or private organizations following certain **formal and informal** rules. It seems that these rules lead to the input of CBE data which primarily reflect a **juridical reality** but which do not always correspond with how local civil

servants look at reality (companies) or which are difficult to correctly interpret by local civil servants. For instance, the input of the activities carried out by a company by the Enterprise Counters and the National Office for Social Security is based on a very detailed European statistical code. Our findings show that it is extremely difficult for local civil servants to use these codes in order to communicate to groups of companies that carry out the same activities. Another example concerns the input of the legal status of a company. While local civil servants are only interested in companies who operate or not operate within their municipality, the CBE consists of a whole range of different 'juridical' labels to indicate the legal status of a company. In summary, our findings show that some of the company data of central government databases sometimes not reflect the reality of how local government look at companies leading to (false) negative perceptions about the CBE and FCBE data quality.

The **institutional approach** can also explain other findings. Following this approach, *an innovation is also based on a logic of appropriateness and refers to the notion of isomorphism* (Korteland & Bekkers, 2007). In this case, **mimetic isomorphism** or the **imitating** of other organizations played a role in the adoption of the applications developed by the provincial government of West-Flanders and the "Leiedal" intermunicipal partnership, as civil servants who use these applications mentioned that their adoption decision was sometimes primarily inspired by the adoption of these applications by other municipalities. Also, **normative isomorphism** influences this case, as organizations such as the Association of Flemish Cities and Municipalities (AFCM) promote the use of the CBE and/or FCBE by local governments. Finally, **coercive isomorphism** is likely to play a future role as the Flemish minister for eGovernment is planning to make the use of the FCBE by Flemish municipalities mandatory.

Another influencing factor concerns the **technical compatibility of the ICTs** embedding the CBE and FCBE. ICTs developed by intermediary ICT service providers which are automatically connected with the CBE or FCBE via web services cause a **path dependency** regarding the purchase of ICTs for local governments. For instance, because of closed standards, municipalities that make use of an accounting program from supplier X also adopt application Y (from the same supplier) which embeds the CBE. In this regard, our case confirms the finding of Rotthier, Boudry & De Rynck (2006) who stated that *previous ICT investments determine the future decisions concerning the purchase or adoption of ICTs*.

Following the institutional approach, a number of other **formal and informal institutions** also influenced the adoption of the CBE and/or FCBE by Flemish municipalities. Firstly, with regard to the FCBE files and reports that were adopted the most, we distinguish a **lack of capacity** in terms of **time**, **personnel** and **technical skills** at the local level to implement these CBE disclosing applications. A lack of capacity in combination with the fact that local civil servants have some difficulties to interpret the data correctly was one of the main reasons which led to non-use of the CBE.

Secondly, we also notice that the use of the CBE within Flemish local governments is influenced by the large **autonomy/freedom** of local civil servants' with regard to the data they prefer to use. In this case, we distinguish two different adoption decisions: a top-down decision taken by the head of the administration and a bottom-up decision taken by the head of a municipal services or an individual civil servant. Top-down decisions to adopt the CBE and/or FCBE were rather exceptional and mostly concerned the adoption of Customer Relationship Management (CRM) systems connected with the CBE and/or FCBE. Bottom-up decisions by consequent occurred much more often leading to the adoption (as well as non-adoption) of different CBE and/or FCBE applications by different municipal services or civil servants of one municipality.

Finally, some of our findings considering the adoption of the CBE and/or FCBE can be explained by using elements of the **political policy approach**. Firstly, a number of civil servants did not want to use the CBE and/or FCBE data because they preferred the use of their own databases which were developed based on the collection of company data by themselves or by the purchase of private company databases. For these civil servants, the advantages of the CBE and/or FCBE data did not exceed the advantages of their own (private) company databases.

Both the survey and the interviews also made it clear that the management of data (including company data) within local governments is clearly a matter of each municipal service, often **lacking an organization-wide information policy**. For instance, in two municipalities, the local economic services adopted the Company Guide application. The purpose was to confirm the local economic service as a municipal contact point from which all municipal communications towards companies would be initialized. However, a number of other municipal services refused to give up their autonomy and decided to maintain their own databases.

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## V. CONCLUSION

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With regard to the development of the CBE and its derivative projects, our findings make clear that the objectives connected to the establishment of the CBE and/or the FCBE can be explained by both a rational and cultural policy approach. However the process of developing the CBE and the other derivative projects can merely be explained by using both a political and institutional policy approach. Above all, the case of the CBE shows how difficult it is to share the ownership and management of a federal central database with other government agencies at other levels of government in order to reach a common image about how the CBE can further decrease administrative burden at all levels of government.

As regards the participation of local governments within the CBE-project, the prospect of more efficient and effective local governments' services towards companies clearly influences local governments to adopt the CBE and/or FCBE. However some adoption decisions were not based on a logic of consequence.

Firstly, adoption decisions were also influenced by the environment. This led to municipalities which imitated other municipalities and adoption decisions that were influenced by the promotion of the use of the CBE and FCBE by organizations such as the AFCM. Secondly, local capacity plays an important role. Because the CBE-data do not always reflect the needs of local civil servants' and their perceptions towards companies, the CBE-data need to be checked and operationalized before use. In a number of cases, a lack of time and personnel made this impossible resulting in non-use of the CBE and FCBE data. Thirdly, images and perceptions of local governments about the CBE and FCBE also influenced non-adoption and/or the use. For instance, interactions between local civil servants led to a frame of reference in which the data quality was perceived as very poor. Last but not least, a power game between different municipal services also influenced local adoption and use of the CBE and/or FCBE data. In a majority of municipalities, the management of data is still the responsibility of each municipal service. Attempts to realize an organization wide management of (company) data were often countered by the unwillingness of municipal services that did not want to give up their autonomy.

In conclusion, the evolution towards intergovernmental data sharing is clearly not a linear process in which all governments agencies use authentic sources from one day to another. On the contrary, this development has a process dynamical character: the way in which and the extent to which the CBE is

adopted and used is influenced by the features (for instance: power games, institutions, bounded rationality, ...) of both the project and the agencies that adopted and use(d) the CBE and/or FCBE. Subsequently, this leads to adaptations of the project's features but also affects the characteristics of the participating agencies. In this way, our analysis proves the necessity to link Public Administrations theories on to the study of intergovernmental data sharing as we succeeded in identifying and explaining the existence of these 'influencing characteristics' by using Bekkers' framework consisting of four policy approaches.

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