Université Catholique de Louvain

THE DEVELOPMENT OF INTERNAL AUDITING WITHIN BELGIAN PUBLIC ENTITIES:

A NEO-INSTITUTIONAL AND NEW PUBLIC MANAGEMENT PERSPECTIVE

Dissertation

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THE DEVELOPMENT OF INTERNAL AUDITING WITHIN BELGIAN PUBLIC ENTITIES: A NEO-INSTITUTIONAL AND NEW PUBLIC MANAGEMENT PERSPECTIVE

For the AURAP

DOCTORAL JURY

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Diane van Gils

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List of Abbreviations

COSO	Committee of Sponsoring Organizations of the Treadway Commission
EMAS	Eco-Management and Audit Scheme
ERM	Enterprise Risk Management
IA	Internal Audit
IA-CM	Internal Audit Capability Model
IIA	Institute of Internal Auditors
ISO	International Organization for Standardization
NPM	New Public Management
QCA	Qualitative Comparative Analysis

Introduction

Most Internal Audit (IA) programs in the Belgian public sector were established following recent public managerial reforms designed to increase the managerial accountability, performance, and reliability of public administrations. These initiatives were related to the most recent trends reflected by internal control framework standards, such as COSO/ERM[1]and INTOSAI,[2] which have closely aligned the organizational control activities and related IA programs with broader organizational objectives and risks (Krogstad, 1999). In 1999, the Institute of Internal Auditors (IIA) confirmed this evolution by providing a new definition of the expectations of internal auditing in the public and private sector alike:

> An independent and objective assurance and consulting activity designed to add value and improve an organization's operations. Internal auditing helps an organization to accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance processes. (IIA, 1999)

In addition to these trends, we should keep in mind that the overall institutional landscape of public sector auditing and control has a long and varied history in each country (Power, 1999). These country-unique factors undoubtedly influence how each country interprets internal auditing in terms of missions and accountability, despite the IIA's international definition and global trends.

In this context, the objective of this dissertation is to examine the way IA is adopted in the Belgian public sector, including ministries and decentralized agencies regarding varying levels of government. Although the rate of adoption of IA practices within Belgian public entities has increased since 2000, these practices remain nascent and scarce. In terms of IA professionalization, IA programs range from a traditional assurance to a more complex performance and consultancy missions orientation, with most falling in the middle. The dissertation main research question is *to ask to what extent institutional theory, combined with new public management doctrine, with a specific focus on the autonomy of public organizations, explains the choices of Belgian public entities in adopting and professionalizing their IA programs*.

Public entities in this dissertation encompass departments, large municipalities, and decentralised agencies operating under the oversight authority of a public agent, including public companies, cooperatives, and specific public institutions. The main empirical findings contribute to institutional research on managerial practice at the very early stages of the

1 Committee of Sponsoring Organizations of the Treadway Commission/ Enterprise Risk Management.
2 ISSAI (International Standards of Supreme Audit Institutions) or INTOSAI.

institutionalization process. On the one hand, in line with most institutional studies, the diffusion process of the IA program is examined. On the other hand, the post-adoption life of internal audit program is also analysed to discover its sustainability and level of professionalization within public organizational settings.

This research idea was constructed on the basis of intermediary research projects and their resulting findings and through networking opportunities.

The idea of launching a dissertation on internal auditing in the public sector was first suggested by the research unit called the Association Universitaire de recherche sur l'Action Publique (AURAP) at the Université Catholique de Louvain (UCL). AURAP wished to develop a new type of research expertise based on risk management and internal control in the public sector. This was as the result of the global trends described above and a research study carried out in 2006 that provided an in-depth analysis of risk management and internal control practices, including IA programs within Belgian social security public institutions (SSPI). That research investigation was conducted under the supervision of AURAP executive director, Professor Christian de Visscher, who lectures on Public Management at UCL.

Subsequently, one of UCL's research partners, the Public Management Institute of Katholieke Universiteit Leuven (KUL), wished to launch a study with the AURAP team with the aim of describing the overall IA landscape in the Belgian public sector under the framework of a more global research program financed by the Flemish government. A survey on IA was then conducted in 2008 with a questionnaire sent to the head of all IA programs within the Belgian public sector at both the federal and regional levels. This survey was a first attempt to provide in-depth knowledge on the institutional IA legal framework at different government levels and to provide statistics on IA programs in ministries and public agencies. Not only did the survey findings enabled us to investigate the research question in the public sector context further, it also provided opportunities for networking and knowledge exchange with IIA BEL members, as well as with Professor Gerrit Sarens, who lectures on Governance and Internal Auditing at UCL. Results of this survey have been reported to IIA BEL seminars, conferences, and publications. Meanwhile, Professor Sarens agreed to become a member of the dissertation project and suggested bringing one of his peers, Professor Laura Spira, Professor of Corporate Governance at Oxford's Brookes University Business School.

After the completion of the survey and an extensive literature review, we refined our dissertation research question, focusing on IA research in particular. We noticed that very few studies addressed IA in government and most were either largely descriptive or failed to involve public administration theories adequately when interpreting empirical findings.

Consequently, we decided that the research for this dissertation should prioritize coming to a better understanding of IA practices within the context of public entities, in close alignment with public administration theories. Consequently, we started a second literature review on organization theories, focussing on public entities. We found that a neo-institutional perspective was of particular relevance to our research context for two reasons. First, all public entities in our study population were working under the supervision of a public authority so their operational environment was likely to be more constrained than entities operating in the private sector (Frumkin and Galaskiewicz, 2004). Second, our empirical research revealed that audit programs by definition are often seen as a direct stamp of organisational reliability, irrespective of their performance.

The research design was expanded by the inclusion of several other contributors. In 2007, AURAP joined the Comparative public Organisation data Base for Research and Analysis network (COBRA), which was initiated in 2001 by the Public Management Institute of the Katholieke Universiteit Leuven. The COBRA network developed research and networking activities aimed mainly at developing and replicating a common questionnaire designed to build a cross-country database for comparative descriptive and explanatory analysis in public management. Several European country teams have already replicated the survey to explain administrative behaviour, including Flemish agencies, thereby making these concepts and their application a good theoretical fit for our research design. Although the empirical focus of our dissertation remained national, the COBRA theoretical framework used in our dissertation framework provides a foundation to enable international comparisons for further research in this field. Meanwhile, we had opportunities to discuss the research project with experts in quantitative methods during doctoral seminars. Colleagues in these seminars suggested that a configurational methodology will better fit our research design than traditional regressions: this approach will better highlight clusters of public entities on the basis of certain features (here autonomy attributes) with regard to specific IA outcomes. Our own university had a renowned specialist, Professor Benoît Rihoux, with a dedicated team in configurational methods, more precisely Qualitative Comparative Analysis (QCA) and related techniques. He accepted the invitation to join the dissertation team.

Following the success of the 2008 survey, IIA BEL wished to launch a survey in 2010 on its behalf on IA practices in the Belgian public sector, to provide fresh statistics to its members and initiate benchmarking activities based on the recently developed Internal Audit Capability Model (IA-CM) for the public sector (IIA, 2009). Because we wished to relaunch a survey in the same field as well to test the dissertation's new theoretical framework, we decided to join IIA BEL in this initiative with the support of the Gent Universiteit and a working group composed of representatives of the Belgian public sector. Additionally, when we examined the IA-CM further, we found that it was an appropriate referential for constructing the IA professionalization dimension of our research theoretical framework because it provides all the administrative and normative ingredients to measure IA institutionalization in terms of administrative sustainability and compliance with IA professionalization. The conceptualization of the questionnaire and the analysis of data were performed by the dissertation team while IIA BEL team provided administrative support and published the questionnaire online. Our central challenge was to condense the COBRA questionnaire and the IA-CM framework into a practical questionnaire of moderate length and usability without losing the normative reach of both complex templates. An overview of the survey results was reported in October 2010 and published into an IIA BEL working document while we examined further the database to conduct our own research investigation on the basis of the dissertation theoretical framework.

Finally, one should keep in mind that the Ph.D. candidate had experience in the public sector before starting this dissertation, especially with regard to federal public entities where she worked as a practitioner on internal control tools for several years within a context of managerial reform. Before that she worked in international public programs, including quality management, where benchmarking, best practices, and obstacles in managerial public reforms were discussed. Her previous career has likely had an implicit influence on her research design, philosophy, and interpretation.

This dissertation is divided into the following chapters that follow a top-down, cascade logic, that is, from a macro perspective, involving a descriptive approach, to a more micro perspective, including both descriptive and explanatory approaches that contain more detailed examples.

Chapter 1, “Definition and Institutional Framework of Internal Auditing in the Belgian Public Sector Context“, defines IA as a professional practice and its theoretical underpinnings in the public sector. This chapter also provides a brief description of the structural development of IA programs in other national public contexts before analysing different structural IA institutional frameworks at the federal and regional levels in Belgium. The results of this study shows that differences exist between the way IA is institutionally organised on the different government levels. On the Flemish regional level, regulations on internal auditing and audit committees are implemented in a very centralized way. On the other hand, on other government levels including the federal, the other regional and local levels, internal auditing is organised in a more decentralised way. Because this chapter provides the overall institutional landscape, it directly influenced the adoption and profile of most IA programs of public entities examined in this dissertation research. This chapter was published in the Belgian journal *Pyramides,* following the analysis of the 2008 survey findings cited above.

Chapter 2, “The Determinants of Internal Auditing within Belgian Public Entities: a Neo-Institutional and New Public Management Perspective Using a Fuzzy Set Analysis”, provides the core of this dissertation. It provides an in-depth justification of the scientific relevance of the research objectives and the theoretical perspectives used. Above all, we stress that internal auditing becomes a new administrative function in the public sector as a result of broader managerial reforms while research on IA in the public sector remains scarce to date. This chapter describes the complete theoretical framework, including the main theories used and the hypotheses, as well as the quantitative approach using a specific QCA technique called “Fuzzy Set Analysis”. It also describes the population of cases and the operationalization of the variables. Empirical findings are also included in this chapter since this chapter will be further published as an article.

Chapter 3, “Qualitative cases study based on a triangular approach with the fuzzy set empirical test”, investigates further the main empirical configurations and issues highlighted in the previous chapter following a triangular approach. In other words, we decided to further investigate some cases that have participated in the quantitative survey to test the relevance of the quantitative findings. As its title indicates, Chapter 3 involves a qualitative survey and should be distinguished from the empirical test applied in Chapter 2, where the data was collected using a quantitative survey[3]. There is sometimes overlap in content between this chapter and chapter 2. However, the two approaches complement one another as the qualitative evidence illustrates the quantitative data, using detailed examples. Chapter 3 also investigates the mimetism condition, which was not tested in the quantitative survey.

The last chapter, “Concluding Remarks”, summarises the dissertation’s theoretical framework and main findings in relation to the hypotheses and contributions. Second, it discusses additional findings found in the empirical test, including additional factors most likely to influence IA development in our dissertation context. The final conclusion of this dissertation is that IA is still in its infancy; this nascent state of development has directly impacts on the level of IA professionalization, even as there is a move towards IIA standards. Difficulties with regard to IA adoption and professionalization remain. Some of these difficulties are very specific to the public sector in Belgium and probably to other national public contexts. Finally, on the basis of the very low score in terms of IA professionalization of most IA programs investigated in the dissertation survey, the conclusion also discusses

3 Although QCA is formalised as a “quantitative” approach, it uses both quantitative and qualitative methods and data.

the extent to which public entities are capable or willing to progress in terms of IA professionalization.

The dissertation ends with a summary of its theoretical contributions, followed by the appendices. The latter includes a summary of the research limitations and new topics for research, as well as documents that provide further evidence and technical methodological aspects. The quantitative questionnaires, and the IIA BEL report on its 2010 survey are also included here for further information, but remain untranslated from the French.

1. Definition and Institutional Framework of Internal Auditing in the Belgian Public Sector Context

This part mainly encloses an article published in 2008 by the Ph.D. candidate in a Belgian journal as an introduction chapter of this dissertation[4]. The article started with a brief recall of the basic notions of internal control and IA with a focus on the public sector context. It then described certain IA practices in other national public contexts on the basis of international studies. Third, it provided an in-depth description of the Belgian IA legal and structural framework at the federal and regional levels in Belgium. It concluded with a synthesis and comparison between the various Belgian authorities concerned.

An executive summary of the article is provided as an introduction to this chapter while the article remains in French. The executive summary only focuses on the IA theoretical background definitions and the IA legal and structural landscape in the Belgian public sector. In addition, some updated notes about recent federal and regional IA developments that occurred since the dissertation's final analysis have been reported. The chapter ends with a description of IA legal frameworks at local levels and a concluding remark to explain the importance of these frameworks on the cases investigated within the framework of this dissertation.

1.1. Executive summary

Public reforms over the twenty last years aimed at improving the performance of the public entities to increase credibility and legitimacy of the public service (De Visscher, C. and Petit, L, 2002). The performance of an organization can be reinforced by various managerial processes, including better control of an organization's activities. In this context, internal auditing is regarded within the framework of these administrative reforms as a new instrument that makes it possible to reinforce the reliability of internal control of an organization, i.e., to ensure that the most important risks of an organization are covered and that internal control devices are effective, complete and integrated into the organization[5].

The article investigates the IA institutional framework of four different levels of public administration in Belgium: the Federal, the Flemish, the French community and the Walloon region. Each level has its own distinct legislation and structural organization with regard to internal auditing.

4 Van Gils, D., de Visscher, C., Sarens, G., Spanhove, J. (2008) "L'organisation des activités d'audit interne dans les différentes autorités publiques en Belgique", *Pyramides*, 15, 95-124.

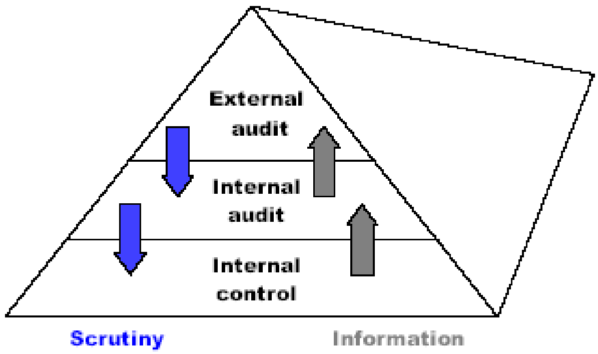
5 See "Note politique présentée par la Ministre du SPF Budget et Contrôle de la Gestion adoptée par le Conseil des ministres du 30 juin 2006", p6.

IA theoretical background

The role of the internal audit in the control chain can be better understood through the concept of the "control pyramid." (Sterck et al., 2005). It illustrates the place of IA in the single audit, each level of control being based on the preceding level to avoid the duplication of controls while guaranteeing that the most important risks are covered.

Sterck et al. (2005) identify three levels in the so-called "control pyramid", as illustrated by Figure 1.

Figure 1: The three-levels of the control pyramid (Sterck et al., 2005)



The control pyramid contains the three traditional functions of control. As Sterck et al. (2005:15) explained:

> At the basis of the pyramid, one may find the internal control system. At the second level, there is the internal audit system, which builds further on the internal control system. At the third level, there is the external auditor, which relies in his/her work on the achievements of the internal auditor.

In other words, the figure theoretically shows that the internal audit function builds on the internal control system, and the external auditor relies on the achievements of the internal auditor. Definitions of the different concepts of the control pyramid are presented below.

Internal control is defined by the International Organization of Supreme Audit Institutions (INTOSAI) in its "Guidelines for Internal Control Standards for the Public Sector" as,

> an integral process that is effected by an entity's management and personnel and is designed to address risks and to provide reasonable assurance that in pursuit of the entity's mission, the following general objectives are being achieved: executing orderly, ethical, economical, efficient and effective operations; fulfilling accountability obligations; complying with applicable laws and regulations; safeguarding resources against loss, misuse and damage. (INTOSAI, 2004)

The Institute of Internal Auditors (IIA) defines internal auditing as

> An independent and objective assurance and consulting activity designed to add value and improve an organization's operations. Internal auditing helps an organization to

> accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance processes. (IIA, 1999)

At the top of the pyramid the external audit aims at mainly certifying the regularity, the sincerity and the faithful image of the accounts, performance results and financial statements provided by the organization (Renard, J, 2008).

The relationship between the internal audit and the external audit often creates confusion because their missions of assurance and work methods are often similar. There are, however, some important differences between the internal and external audit (Renard, J. 2008). These concern the perspective of auditing, the accountability and reporting lines, the level of independence in the position, and the operational emphasis. The external auditor carries out missions of assurance for the benefit of principals or clients external to the organization (those which provide the resources). On the other hand, the internal auditor addresses its focus to internal principals or clients within the organization (those which use the resources). In other words, the external auditor acts at the behest of a principal outside the organization, generally represented in the private sector by the shareholders, the banks, and the suppliers; in the public sector, it is represented by the official political executive authorities or the parliament. As for the internal auditor, he acts for the benefit of a principal within the organization, generally the board of directors, the audit committee or the top civil servant. In sum, in the public context, the internal auditor reports most of the time to the management within the organization, while the external auditor is principally accountable to external public authorities. It is essential in the implementation of an IA program, in order for the internal auditor to perform his missions of assurance competently and create improvement within the organization, to take care that he does not work in an isolated way. Rather, he must remain in a structure allowing a close and permanent dialog and collaboration with top management and other management lines of the organization. This must be done while preserving the auditor's independence and objectivity with regard to the activities and members of his organization.

IA institutional framework in the Belgian public sector

Are IA programs obligatory or not? In the private sector, IA programs are compulsory in the financial sector (banks and insurances) and for listed companies on the New York Exchange. For the other companies, IA programs are carried out on a voluntary basis to comply with codes of good governance. In the Belgian public sector, the two scenarios exist.

At federal level, the IA function was mandated by royal decrees within the framework of the last managerial reform called Copernicus. Since 2002, federal departments and some agencies are required to establish an IA program and an audit committee[6]. Federal royal decrees on IA mandates have changed several times; requiring departments and some agencies from 2002 to implement an audit committee individually. Then in 2007, public entities were required to abolish them and replace them with a central audit committee for all departments and agencies, which is organized under the Council of Ministers.

At the Flemish administration level, a transversal IA program called "Interne Audit van de Vlaamse Administratie" (IAVA) and a central audit committee have been established following the decree of April 16, 2004[7]. IAVA audits all departments and agencies in the Flemish administration, while IA regional programs (with their own audit committees) are still active in some decentralised agencies. IAVA reports to the central audit committee directly attached to the Flemish executive government.

At the French community, IA programs are mandated only for certain agencies by the 2003 decree[8]. Concerning the ministry of the French community, an IA program has been established in 1998 by the act that founded the ministry[9]. At the level of the Walloon region, IA programs generally commence following requests of the European institutions, in particular within the context of European structural and agricultural funds. The recent ministry of Walloon region, which was established following a merger in 2010 with the two previous Walloon regional departments, has just implemented an IA program. IA programs of the Walloon region and the French community report directly to an audit committee established at entity level if it is implemented.

To conclude, all public entities which are not covered by the rules mentioned above do not share common legal frameworks for requiring IA programs. These are then implemented in a decentralized way, either on a voluntary basis or through individual IA mandates such as those found in some agencies through industry or European requirements. The Flemish regional administration has organized its IA program in the most centralized way. The federal administration tends to evolve in that direction too, not only because it has a central audit committee, but also because that committee made a proposal in 2011 to centralize all federal

6 See "arrêté royal du 7 novembre 2000 portant création et composition des organes communs à chaque service public fédéral"; "arrêté royal du 19 juillet 2001 sur le comité d'audit et services d'audit et par l'arrêté royal du 2 octobre 2002 relatif à l'audit interne au sein des services publics fédéraux"; "arrêté royal du 26 mai 2002 relatif au système de contrôle interne au sein des services publics fédéraux"; "arrêté royal du 17 août 2007 relatif aux activités d'audit interne dans certains Services du pouvoir exécutif fédéral"; "arrêté royal du 17 août 2007 portant sur la création du Comité d'audit de l'Administration fédérale (CAAF)".

7 See "Besluit van de Vlaamse Regering tot oprichting van het intern verzelfstandigd agentschap "Interne Audit van de Vlaamse Administratie" en tot omvorming van het auditcomité van de Vlaamse Gemeenschap tot het Auditcomité van de Vlaamse Administratie."

8 See "Décret du 21 février 2003 relatif à la transparence, à l'autonomie et au contrôle des organismes publics, des sociétés de bâtiments scolaires et des sociétés de gestion patrimoniale qui dépendent de la Communauté française, Art.24 " Une cellule d'audit interne est instaurée dans chaque organisme public. "

9 See "Arrêté du Gouvernement de la Communauté française du 7 juillet 1997 fixant le cadre du personnel des Services du Gouvernement de la Communauté française - Ministère de la Communauté française (MB 1997-09-05)".

IA programs covered by the royal decrees into one external service such as IAVA mentioned earlier.

1.2. L'organisation des activités d'audit interne dans les différentes autorités publiques belges

(Diane VAN GILS, Christian DE VISSCHER, Gerrit SARENS et Jürgen SPANHOVE[10])

Résumé

L'objet de l'article vise à décrire et comparer le cadre institutionnel dans lequel se sont développées les activités d'audit interne dans les différentes autorités publiques en Belgique. L'analyse porte sur le mandat, la structure organisationnelle et le rattachement hiérarchique des activités d'audit interne de l'autorité fédérale, de la Communauté française, de la Région wallonne et de la Communauté flamande. On observe que lesdites activités ont été rendues obligatoires et qu'elles sont supervisées de manière centralisée au niveau des administrations fédérales et flamandes, alors qu'au niveau des administrations francophones, les services d'audit interne sont apparus le plus souvent suite à une pression extérieure et sont organisés de manière décentralisée. Pour ces dernières, il n'existe pas actuellement d'acteurs centraux en matière d'audit interne. La fonction d'audit interne dans le secteur public belge est en grande majorité supervisée par un comité d'audit au sein d'une organisation. Seules les administrations fédérales et flamandes disposent d'un comité d'audit central.

I. Introduction

Les réformes administratives de ces vingt dernières années visent à améliorer la performance des administrations publiques, celle-ci étant intimement liée à la crédibilité et à la légitimité de l'action publique[11]. La performance d'une organisation peut être renforcée par différents procédés managériaux, dont une meilleure maîtrise des activités d'une organisation. Ce qui suppose un système de contrôle interne complet, intégré et fiable. Auparavant, le système de contrôle public traditionnel impliquait un grand nombre d'activités de contrôle pour vérifier si les règles étaient bien suivies, rendant tout système de contrôle souvent fort pesant et sans garantie que la réalisation des objectifs d'une organisation soit évaluée. Une meilleure maîtrise des activités d'une organisation comporte à la fois une extension du champ d'application du système de contrôle interne allant bien au-delà de la conformité des règles, et une division claire du travail entre les différents acteurs de la chaîne de contrôle[12]. Dans ce contexte, l'audit interne est de plus en plus considéré dans le cadre de ces réformes administratives comme un instrument permettant de renforcer la fiabilité du système de contrôle interne d'une organisation, c'est-à-dire d'assurer que les risques les plus importants d'une organisation soient couverts et que les dispositifs de contrôle interne soient efficaces, complets et intégrés dans l'organisation.

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10 D. VAN GILS est chercheure et doctorante dans le domaine du contrôle interne dans le secteur public à l'Association universitaire de recherche sur l'action publique (AURAP) de l'Université catholique de Louvain (diane.vangils@uclouvain.be) ; C. DE VISSCHER est professeur au Département des sciences politiques et sociales de l'Université catholique de Louvain et directeur de l'Association universitaire de recherche sur l'action publique. Ses sujets de recherche ont trait au management organisationnel et financier en secteur public (christian.devisscher@uclouvain.be) ; G. SARENS est professeur à l'Institut d'Administration et de Gestion (IAG) de l'Université catholique de Louvain et à l'Université d'Anvers. Ses sujets d'enseignement et de recherche ont trait à l'audit, la gestion des risques et le contrôle interne (gerrit.sarens@uclouvain.be) ; J. SPANHOVE est chercheur et doctorant dans le domaine de la gouvernance publique et des instruments de gestion à l'Instituut voor de Overheid à la KULeuven (jurgen.spanhove@soc.kuleuven.be).

11 C. DE VISSCHER, L. H. PETIT, « L'audit interne dans l'administration publique : un état des lieux dans les ministères fédéraux », *Pyramides*, n°5, 2002, pp. 74-100.

12 M. STERCK, B. SCHEERS, G. BOUCKAERT, *The Modernization of the Public Control Pyramid: International Trends*, 2005, p. 15.

La présente contribution a pour objet, d'une part, de donner suite à l'analyse du développement de l'audit interne au niveau fédéral belge, telle que décrite en 2002 dans la revue *Pyramides* au regard des dernières décisions gouvernementales à ce sujet[13], d'autre part, d'étendre l'analyse à d'autres autorités publiques en Belgique : la Communauté française, la Région wallonne et la Communauté flamande. Cet article se base sur des données empiriques et des entretiens qualitatifs provenant d'une récente enquête réalisée par l'Université Catholique de Louvain , conjointement avec la KULeuven, à la demande de l'Institut d'Auditeurs Internes Belgique (IIABEL), sur les pratiques de l'audit interne dans les administrations fédérales, régionales et communautaires[14].

Notre enquête nous a permis de révéler qu'un grand nombre de services d'audit interne ont récemment été mis en place ou vont prochainement se créer, et que le cadre structurel dans lequel ceux-ci sont organisés est différent selon l'autorité publique concernée. C'est pourquoi il nous a semblé utile de décrire ces différents cadres et de mettre en lumière les similitudes et différences entre les différentes autorités publiques belges, et par rapport à quelques pratiques analysées en 2005 dans certains pays reconnus comme étant leaders dans le domaine du contrôle interne[15].

L'article commence par un rappel succinct des notions de base du contrôle, puis décrit le périmètre d'analyse incluant des pratiques internationales en guise d'illustration. Ensuite, l'article traite du cas empirique belge et conclut par une synthèse et comparaison entre les différentes autorités belges concernées.

II. Positionnement de l'audit interne

Afin de bien comprendre la position de l'audit interne dans la chaîne du contrôle en général, il est utile de rappeler, d'une part, les notions clé liées à une vision moderne du contrôle interne, d'autre part, les différences principales entre l'audit interne et l'audit externe dans ce contexte.
Le rôle de l'audit interne dans la chaîne de contrôle peut être mieux appréhendé en reprenant le concept de la pyramide du contrôle car celui-ci illustre bien la place de l'audit interne dans la chaîne du contrôle, chaque niveau de contrôle s'appuyant sur le niveau précédent pour éviter le double emploi des activités de contrôle tout en ayant la garantie que les risques les plus importants soient couverts[16].

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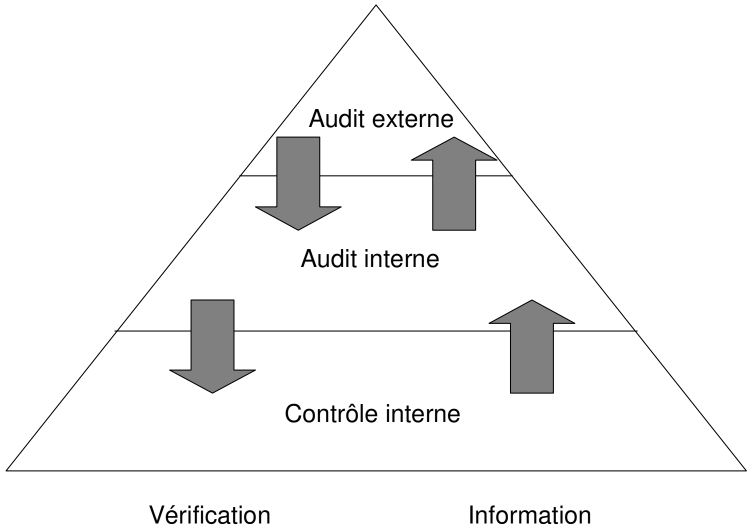
13 Voir C. DE VISSCHER et al., 2002.
14 Nous tenons à remercier tous les participants de l'enquête pour leur vif intérêt et leur contribution active à notre étude, en particulier Madame Béatrice Baumann et Monsieur Philippe Scutenaire au Management support du Service Public Fédéral Budget et Contrôle de gestion ; Monsieur Jean-Michel Cassiers, Directeur général adjoint du Service général d'audit budgétaire et financier du Ministère de la Communauté française ; Monsieur Christophe Rappe, Inspecteur des finances à la cellule Audit de l'Inspection des Finances pour les fonds européens à la Région wallonne ; Madame Marie-Louise Volvert, Directrice à la direction Aide à la gestion au ministère de la Région wallonne et Madame Josiane Van Waesberghe, auditeur interne au Service Public Fédéral Mobilité. Il va de soi que seuls les auteurs assument les propos de la présente contribution.
15 M. STERCK et al., 2005.
16 M. STERCK et al., 2005, pp. 15-18. Pour ce qui concerne une description précise du modèle du single audit, voir COUR DES COMPTES EUROPÉENNE, avis 2/2004, JO 2004/C107/O2.

Schéma 1 : la pyramide de contrôle[17]



La pyramide de contrôle comprend les trois fonctions de contrôle traditionnelles : à sa base, on retrouve *le contrôle interne*, défini par l'INTOSAI comme *« un processus intégré mis en œuvre par les responsables et le personnel d'une organisation et destiné à traiter les risques et à fournir une assurance raisonnable quant à la réalisation, dans le cadre de la mission de l'organisation, des objectifs généraux suivants : exécution d'opérations ordonnées, éthiques, économiques, efficientes et efficaces ; respect des obligations de rendre compte ; conformité aux lois et règlementations en vigueur ; protection des ressources contre les pertes »*[18].

Au deuxième niveau, on retrouve *l'audit interne* défini par l'IIA comme *« une activité indépendante et objective qui donne à une organisation une assurance sur le degré de maîtrise de ses opérations, lui apporte ses conseils pour les améliorer, et contribue à créer de la valeur ajoutée. Il aide cette organisation à atteindre ses objectifs en évaluant, par une approche systématique et méthodique, ses processus de management des risques, de contrôle, et de gouvernement d'entreprise, et en faisant des propositions pour renforcer leur efficacité »*[19].

Au sommet de la pyramide se situe *l'audit externe* qui vise à certifier la régularité, la sincérité et l'image fidèle des comptes, résultats et états financiers fournis par l'organisation.

La relation entre l'audit interne et l'audit externe porte souvent à confusion car leurs missions d'assurance et méthodes de travail sont souvent similaires. L'auditeur externe effectue des missions d'assurance pour compte de clients externes à l'organisation (ceux qui fournissent les ressources) alors que l'auditeur interne s'adresse à des clients internes à l'organisation (ceux qui utilisent les ressources). Dans ce contexte, le rapport de l'auditeur avec le destinataire de ses missions retrouve généralement son fondement théorique dans la théorie de l'agence où l'auditeur agit pour compte du « Principal » (le fournisseur des ressources) pour lui donner l'assurance que l' « Agent » (l'utilisateur des ressources), agit conformément aux intérêts du Principal[20]. Dans le cadre de l'audit externe, l'auditeur externe agit pour compte d'un Principal *extérieur* à l'organisation, représenté généralement dans le secteur privé par les actionnaires, les banques, les fournisseurs, et dans le secteur public, par les autorités de tutelle ministérielle ou le Parlement[21]. L'auditeur interne, quant à lui, agit pour

17 M. STERCK et al., 2005, p. 15.
18 INTOSAI, *Lignes directrices sur les normes de contrôle interne à promouvoir dans le secteur public, 2004*, p. 7.
19 IFACI, *Normes internationales pour la pratique professionnelle de l'audit interne, 2004,* p. 1.
20 J. RENARD, *Théorie et pratique de l'audit interne*, Editions d'Organisation, 2008, pp. 54-55.
21 M. STERCK et al., 2005, p. 16.

compte d'un Principal *interne* à l'organisation, le plus souvent le conseil d'administration, le comité d'audit ou la direction générale. Ce qui est essentiel dans la mise en place d'un service d'audit interne, c'est de bien veiller à ce que l'auditeur interne, afin de mener à bien ses missions d'assurance et d'amélioration des processus au sein de l'organisation, ne travaille pas de manière isolée au sein de celle-ci, mais reste dans une structure permettant une concertation et une collaboration étroites et permanentes avec la direction générale et autres acteurs du management de l'organisation concernée, tout en préservant son indépendance et son objectivité par rapport aux activités et membres de cette organisation[22].

III. Périmètre d'analyse

Plusieurs points d'attention en matière d'audit interne méritent une analyse approfondie et une comparaison entre les différentes autorités publiques. Nous proposons dans cet article d'aborder trois aspects : (1) le mandat des activités d'audit interne ; (2) la structure organisationnelle des activités d'audit interne ; (3) le rattachement hiérarchique de la fonction d'audit interne.

L'analyse porte sur les services ministériels et les différents types d'organisme public de l'autorité fédérale, de la Communauté française, de la Région wallonne et de la Communauté flamande. Pour faciliter la lecture, on les nommera respectivement ci-après *« départements ministériels »* et *« organismes «.*

III.1. Mandat des services d'audit interne

Les activités d'audit interne sont-elles obligatoires ou pas ? Dans le secteur privé, elles le sont dans le secteur financier (banques et assurances) et pour les sociétés cotées en bourse sur le New York Exchange. Pour les autres sociétés, les activités d'audit interne s'effectuent de leur propre initiative, le plus souvent pour répondre aux codes de bonne gouvernance d'entreprise, par exemple le code *Lippens*. Dans le secteur public, les deux scénarii existent. En Suède, par exemple, les activités d'audit interne sont obligatoires depuis 1994 pour les agences gérant des budgets importants. Aux Pays-Bas, celles-ci sont obligatoires dans les départements ministériels depuis 2001[23]. Cette obligation légale a l'avantage de rendre la fonction d'audit interne plus stable, et de la mettre à l'abri des restrictions budgétaires. En revanche, en Australie et au Canada, les activités d'audit interne se développent sur une base volontaire[24].

III.2. Structure organisationnelle des activités d'audit interne

Comment les activités d'audit interne sont-elles structurellement organisées au niveau macro d'une autorité publique ? Deux types de structures peuvent se présenter : une *« structure d'audit centralisée »* et une *« structure d'audit décentralisée »*[25] avec, entre les deux, différentes formules ou gradations dans le processus de centralisation ou de décentralisation. Le critère essentiel pour les distinguer, c'est l'existence d'un acteur central ou pas, en matière d'audit interne.

22 J. RENARD, *ibidem.*
23 M. STERCK et al., 2005, p. 71, p. 84 et p. 141.
24 M. STERCK et al., 2005, p. 138.
25 La plupart des informations de ce paragraphe sont extraites de l'ouvrage de Jacques RENARD, *Théorie et pratique de l'audit interne*, Editions d'Organisation, 6ème édition, 2008, pp. 367-377 et pp. 440-443. Ces informations ont toutefois été adaptées au contexte de l'article.

La présence d'un acteur central chargé de l'audit interne est la caractéristique principale d'une structure d'audit centralisée. Celui-ci effectue généralement l'une ou l'ensemble des quatre missions principales suivantes :

- *La définition d'un cadre de travail global et commun pour l'ensemble des activités d'audit interne couverts dans son champ d'application* : par exemple la définition des normes de travail et de la régulation générale de l'audit interne, la définition et structure des documents type de travail, par exemple la charte qualité et les documents de planning, méthodologie, outils, etc.

- *La définition de la politique et des moyens de la formation professionnelle* : profil exigé des candidats auditeurs, séminaires recommandés, cycles de formation, *etc.*

- *L'audit de l'audit,* c'est-à-dire le contrôle des unités d'audit décentralisées. Pour chaque mission d'audit, un rapport comportant des recommandations sera produit à l'attention du responsable de chaque unité décentralisée pour améliorer l'efficacité de son propre service.

- *La réalisation de missions spécifiques*, souvent à caractère très confidentiel ou spécialisé, et à la demande de la direction centrale du groupe.

En secteur privé, on retrouve généralement une telle structure dans de grands groupes d'entreprises. L'acteur central est alors rattaché directement à la direction centrale du groupe, et veille à ce que les équipes d'audits internes implémentées dans les entités décentralisées suivent les mêmes méthodologies et directives imposées pour assurer un cadre de travail cohérent, efficace, et répondant aux consignes et soucis de la direction générale du groupe, ainsi qu'une politique de coordination.

Dans le secteur public, l'existence d'un tel acteur central en matière d'audit interne implique que celui-ci assure une ou plusieurs des missions précitées, et provienne généralement d'une unité au sein d'un ministère. Par exemple aux Pays-Bas, l'unité « *Audit et Supervision Policy* » au sein du ministère des Finances s'occupe d'élaborer une politique et une méthodologie communes en matière d'audit interne pour les services d'audit des départements ministériels[26]. En Angleterre, le département « *Audit Policy and Advice* » localisé au sein du « *Her Majesty's Treasury* » est chargé d'élaborer les standards et procédures, la politique de formation, de recrutement et d'évaluation des services d'audit déployés dans les départements ministériels[27]. La structure organisationnelle de la Commission Européenne avec le Service d'Audit Interne (SAI) reflète également bien cette structure centralisée.

Il existe par ailleurs différentes formules ou gradations dans le processus de centralisation des activités d'audit. La Suède, par exemple, dispose d'un acteur central d'audit interne, le « *Government Offices Audit Unit*, localisé au sein du Service du Premier Ministre, qui réalise à lui seul l'ensemble des activités d'audit interne pour l'ensemble des départements ministériels. [28] Cette formule représente le processus de centralisation le plus fort puisque ce service effectue à lui seul l'ensemble des activités d'audit interne au sein des entités.

A l'opposé, une structure décentralisée en matière d'audit interne est caractérisée par le développement de la fonction d'audit interne au niveau des départements ministériels et organismes, de manière autonome et sans cadre de travail commun. Leurs interactions se limitent uniquement à un partage d'expériences ou de support. C'est le cas le plus fréquent

26 M. STERCK et al., 2005, p. 73 et p. 138.
27 M. STERCK et al., 2005, p. 101.
28 M. STERCK et al., 2005, p. 84.

dans la majorité des pays[29]. En Australie, ce sont généralement les départements et agences avec un grand nombre d'effectifs qui disposent d'une fonction d'audit interne autonome[30]. C'est notamment le cas du Canada car les départements et agences ne sont pas contraints de suivre la politique développée par l'unité centrale en charge de proposer des procédures et standards de travail en matière d'audit interne, le « *Center of Excellence for Internal Audit* » localisée au sein de l'administration centrale.[31] Ce département n'a qu'un rôle consultatif ou de support, laissant donc les services d'audit interne libres de choisir leurs méthodes de travail, malgré l'élaboration de guides et d'outils par ce service.

Dans les services d'audit interne de petite taille, la fonction est le plus souvent rattachée au niveau hiérarchique le plus élevé de l'entité et est généralement exercée par un seul auditeur, lequel est chargé de plusieurs missions, avec ou sans l'assistance de consultants extérieurs[32]. Ce n'est pas un cas exceptionnel, la taille de l'entité ne justifiant pas toujours la mise en place d'un service en tant que tel. En Grande-Bretagne, les grands départements et agences disposent de leurs propres services d'audit interne alors que les petites entités préfèrent sous-traiter cette activité[33]. Au Canada, le « *Comptroller General's Office* » fournit des services d'audit interne à soixante-trois petites entités administratives car leurs ressources sont limitées pour supporter le coût des activités d'audit interne[34].

Enfin, certains pays adoptent une structure en matière d'audit interne à la fois centralisée et décentralisée, ce qu'on nomme ici des formules hybrides. C'est par exemple le cas de la Suède, où la fonction d'audit interne est déployée de manière décentralisée au niveau des agences et de manière très centralisée au niveau des départements ministériels, comme décrit plus haut dans l'article[35].

III.3. Le rattachement hiérarchique des services d'audit interne

On peut affirmer que le rattachement hiérarchique de l'audit interne a connu une évolution successive liée aux préoccupations principales des missions d'audit interne. Dans le passé, le rattachement de l'audit interne au chef comptable, et par la suite à la direction financière – de moins en moins rencontrée dans la pratique – reflétait généralement la préoccupation dominante du contrôle et de la certification restreints au domaine financier. Aujourd'hui, le service d'audit interne tend de plus en plus à se rattacher à l'instance hiérarchiquement la plus élevée dans l'organisation, cette évolution traduisant l'extension du champ d'application des missions d'audit interne et son rôle de conseil au management[36]. C'est par exemple le cas aux Pays-Bas[37]et en Suède[38], et également au Royaume-Uni où les services d'audit interne, même s'ils sont en grande majorité rattachés à la direction financière d'une entité, doivent rapporter directement à la direction générale[39].

Le rattachement direct du service d'audit interne à un comité d'audit est encouragé par les bonnes pratiques et normes internationales définies par les organismes professionnels en matière d'audit interne, dans la mesure où ce rattachement est le meilleur moyen pour garantir l'indépendance de la fonction d'audit interne par rapport au management de

29 M. STERCK et al., 2005, p. 138.
30 M. STERCK et al., 2005, p. 34.
31 M. STERCK et al., 2005, p. 53.
32 J. RENARD, op.cit., *ibidem*.
33 M. STERCK et al., 2005, p. 102.
34 *Ibidem*
35 M. STERCK et al., 2005, p. 138.
36 J. RENARD, op.cit., pp. 367-368.
37 M. STERCK et al., 2005, p. 72.
38 M. STERCK et al., 2005, p. 85.
39 M. STERCK et al., 2005, p. 102-103.

l'organisation[40]. Les comités d'audit furent créés aux Etats-Unis à partir du 19e siècle pour faciliter l'interface entre l'entreprise et les auditeurs externes car ces derniers ne pouvaient siéger aux conseils d'administration[41]. Le rôle des comités s'est progressivement étendu en parallèle à l'élargissement des préoccupations du contrôle interne. On constate que ceux-ci sont de plus en plus utilisés par les organisations pour montrer qu'elles assument de manière plus efficace leurs responsabilités en matière d'intégrité et de qualité de leurs reportings financiers et des autres processus de contrôle interne, de conformité aux lois, aux règlements et à l'éthique, et d'efficacité de leur système de la gestion des risques. Les comités sont par conséquent en mesure de fournir un support supplémentaire pour assurer l'efficacité et l'indépendance des activités d'audit interne[42]. Cette tendance à l'extension du rôle des comités d'audit se confirme également dans le secteur public[43].

Au cas où l'audit interne est rattaché directement au Comité d'audit, les bonnes pratiques prônées par l'IIA suggèrent d'assurer un reporting double, c'est-à-dire, en fonction des points à discuter, soit au Comité d'audit, soit à la direction générale de l'organisation concernée, soit aux deux[44]. Maintenir un dialogue direct entre auditeurs internes, direction générale et autres niveaux de management est en effet essentiel pour exercer pleinement le rôle de conseil au management[45].

L'établissement d'un comité d'audit au sein des départements ministériels et organismes est stimulé au Canada. Ces comités d'audit sont généralement créés dans les moyennes et grandes organisations et sont composés notamment de représentants du contrôle externe[46]. En Suède, les comités d'audit n'existent pas au niveau ministériel[47]. En Angleterre, tous les départements et entités du gouvernement central doivent disposer d'un comité d'audit, mais celui-ci ne supervise pas directement les activités d'audit interne[48]. Sa mission se limite à un rôle de conseil et d'évaluation globale portant sur le contrôle, le risque et la gouvernance interne de l'organisation pour aider la direction générale à mieux se préparer pour les processus de contrôle formels[49]. Ce comité d'audit est composé du dirigeant principal de l'organisation, du directeur financier, du directeur de l'audit interne et du représentant de l'audit externe.

IV. L'organisation des activités d'audit interne dans le secteur public belge

Nous allons maintenant décrire la manière dont sont organisées les activités d'audit interne dans les différentes autorités publiques belges à travers les trois domaines d'analyse proposés dans cet article, à savoir le mandat, la structure organisationnelle et le rattachement hiérarchique de l'audit interne.

IV.1. L'audit interne au Fédéral

40 INSTITUTE OF INTERNAL AUDITORS, *The Audit Committee : Purpose, Process, Professionalism, (date non mentionnée).* Voir également G. SARENS, I. DE BEELDE AND P. EVERAERT, "Internal audit: the expert in providing comfort to the audit committee – the case of risk management and internal control", *Working Paper*, 2008.
41 J. RENARD, op.cit., pp. 440-443.
42 EUROPEAN CONFEDERATION OF INSTITUTES OF INTERNAL AUDITING*,"* Internal Auditing in Europe", *position paper*, February 2005, p. 40.
43 M. STERCK et al., 2005, p. 39.
44 INSTITUTE OF INTERNAL AUDITORS, The *Audit Committee : Purpose, Process, Professionalism*, (date non précisée),p. 7 ; Voir aussi G. SARENS AND I. DE BEELDE, "The relationship between internal audit and senior management: an analysis of expectations and perceptions", *International Journal of Auditing*, vol. 10, nr. 3, 2006, pp. 219-241. Voir également IIA, *International Standards for the Professional Practice of Internal Auditing*, 2004, en particulier la norme "Attribute Standard 1110".
45 J. RENARD, op.cit., p. 442.
46 M. STERCK et al., 2005, p. 62-63.
47 M. STERCK et al., 2005, p. 89.
48 M. STERCK et al., 2005, p. 109.
49 M. STERCK et al., 2005, p. 39.

Avant la réforme Copernic, les activités d'audit interne sont peu nombreuses et organisées selon une structure décentralisée[50]. La réforme Copernic, et les textes gouvernementaux qui ont suivi, ont rendu obligatoires les activités d'audit interne et la présence d'un comité d'audit pour tous les départements ministériels et la majorité des organismes fédéraux pour la raison suivante : *« Il ne peut y avoir de système de contrôle interne sans audit interne ni d'activités d'audit interne fiables sans Comité d'audit crédible »*[51]. Au vu de ce développement, le Service public fédéral Budget et Contrôle de gestion a joué un rôle central de normalisation, d'harmonisation et de support afin de créer un cadre commun de travail. Le rôle d'unité centrale d'harmonisation conféré explicitement au SPF Budget et Contrôle de la Gestion dans les arrêtés gouvernementaux s'explique notamment par une volonté politique de créer un cadre de référentiels communs, pour parvenir à une meilleure articulation entre contrôle interne et contrôles externes dans une perspective de chaîne de contrôle intégré (« single audit ») nécessaire à la mise en place du modèle européen de contrôle interne (*Public Internal Financial Control*)[52].

IV.1.1. Mandat

C'est à partir de la réforme de modernisation de l'administration publique fédérale que les activités d'audit interne ont été rendues obligatoires dans tous les départements ministériels et certains organismes publics.[53] Dans le cadre de cette réforme, les trois arrêtés royaux de 2000, 2001 et 2002 relatifs à l'audit interne visaient, d'une part, à créer un dispositif institutionnel commun à toutes les entités fédérales concernées, à savoir la création d'un comité d'audit et d'un service d'audit interne dans chaque entité concernée, d'autre part, à développer un cadre de travail commun incluant l'adhésion obligatoire aux référentiels IIA et autres principes communs, l'organisation des formations et du recrutement, ainsi que l'élaboration de documents type dont la charte d'audit interne[54].

Mais cette structure n'a pas vraiment été mise en place de manière satisfaisante[55] : la majorité des départements ministériels et organismes n'avaient toujours pas de services d'audit interne, ni de comités d'audit. En conséquence, les deux arrêtés royaux du 17 août 2007 en matière d'audit interne proposent une refonte des arrêtés royaux précédents en offrant un nouveau dispositif institutionnel. L'obligation d'installer un comité d'audit dans chaque administration fédérale est remplacée par la constitution d'un comité d'audit unique et transversal, appelé le Comité d'audit de l'Administration fédérale (CAAF). En outre, à l'obligation d'installer dans chaque service fédéral un *service* d'audit interne, les textes précités substituent l'obligation de pratiquer des *activités* d'audit interne et d'avoir un responsable d'audit interne par entité fédérale. Cette dernière formulation offre ainsi le choix du mode de gestion au service public fédéral : soit un service permanent est créé au sein d'une entité, soit le responsable de l'audit interne partage son temps entre plusieurs entités

50 Voir C. DE VISSCHER et al*.,* 2002 pour une description de l'état des lieux des activités d'audit interne au niveau fédéral avant Copernic.

51 Note politique présentée par la Ministre du SPF Budget et Contrôle de la Gestion adoptée par le Conseil des ministres du 30 juin 2006, p. 6.

52 AR du 17 août 2007 relatif aux activités d'audit interne dans certains Services du pouvoir exécutif fédéral, article 15.

53 C'est-à-dire les services publics fédéraux, les services publics fédéraux de programmation ainsi que les services qui en dépendent. A partir de 2007 s'ajoutent le Ministère de la Défense, la Régie des Bâtiments, l'Agence fédérale pour la Sécurité de la Chaîne alimentaire, l'Agence fédérale d'Accueil des Demandeurs d'Asile, le Service des Pensions du Secteur public et l'Agence fédérale des médicaments et produits de santé. Le Bureau du Plan n'est pas encore soumis à l'arrêté royal.

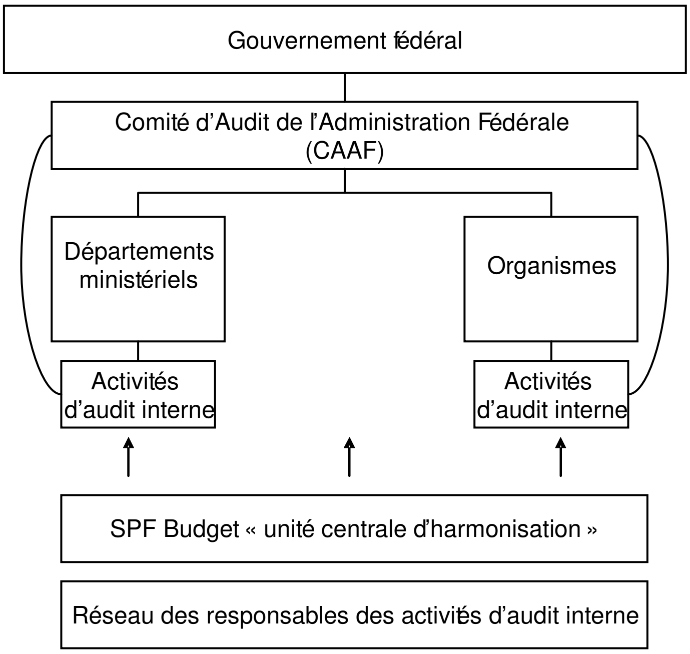
54 Voir l'arrêté royal du 7 novembre 2000 portant création et composition des organes communs à chaque service public fédéral et qui est complété par l'arrêté royal du 19 juillet 2001 sur le comité d'audit et services d'audit et par l'arrêté royal du 2 octobre 2002 relatif à l'audit interne au sein des services publics fédéraux. Voir également l'AR du 26 mai 2002 relatif au système de contrôle interne au sein des services publics fédéraux.

55 Note politique adoptée par le Conseil des ministres du 30 juin 2006, op.cit., p. 6.

fédérales, soit l'entité recourt à de la sous-traitance publique ou privée dans certaines conditions bien précises[56].

IV.1.2. Structure organisationnelle

Schéma 2 : organisation de l'audit au niveau fédéral suivant les A .R. d'août 2007



Suite à la réforme Copernic, les activités d'audit interne au niveau fédéral tendent à évoluer dans une structure de plus en plus centralisée, tout en veillant à ce que celles-ci restent adjacentes au management de chaque entité.

Le cadre de travail commun en matière d'audit interne est élaboré par l' *« Unité centrale d'harmonisation »* au sein du Service public fédéral Budget et Contrôle de gestion, un rôle qui est rendu plus explicite dans les arrêtés royaux du 17 août 2007[57].

La création du Comité d'audit transversal (CAAF) accentue le processus de centralisation des activités d'audit interne. Le CAAF est rattaché directement au Conseil des Ministres et est compétent pour les vingt-trois services fédéraux visés par l'arrêté royal. Le CAAF émet des avis qui portent sur l'organisation et la conduite des activités d'audit interne[58]. L'autonomie de gestion en matière d'audit interne et l'audit de l'audit restent du ressort des entités, ceci afin de mieux responsabiliser le management des entités administratives.

Le CAAF est un organe consultatif, composé de 7 experts indépendants désignés pour 6 ans[59]. Il rapporte directement au Conseil des Ministres en fonction des demandes de celui-ci, portant en particulier sur le portefeuille des risques et son degré de maîtrise, ou des cas spécifiques détectés par le Comité sur base du principe de subsidiarité. Il garantit

56 AR du 17 août 2007 relatif aux activités d'audit interne dans certains Services du pouvoir exécutif fédéral, et AR du 17 août 2007 portant sur la création du Comité d'audit de l'Administration fédérale (CAAF).
57 AR du 17 août relatif aux activités d'audit interne, op.cit., article 15.
58 AR du 17 août 2007 portant sur la création du CAAF, op.cit.. § 2.
59 AR du 17 aout 2007 portant sur la création du CAAF.

l'indépendance et l'efficacité des processus d'audit interne et veille à ce que ses recommandations soient prises en considération. Comme il doit également s'assurer de la maîtrise des risques au sein de chaque entité fédérale comme au niveau de l'ensemble, il est chargé d'assister le Gouvernement dans la détection des risques transversaux. Disposant d'une vue globale du fonctionnement administratif, le comité d'audit a également vocation de devenir un acteur majeur de la simplification administrative. Le Chef de corps de l'Inspection des Finances participe de droit aux réunions à titre consultatif et sans droit de vote aux réunions du Comité d'audit de l'Administration fédérale, ceci afin de faciliter la coordination entre contrôle externe et interne, pour éviter des redondances ou des doubles contrôles[60].

Enfin, l'existence du réseau des responsables d'activités d'audit interne est confirmée dans les deux arrêtés royaux de 2007. La mission du réseau vise à contribuer à l'amélioration et l'harmonisation des pratiques de l'audit interne au sein de l'administration, et à aider le gouvernement à détecter les risques transversaux[61].

Nous constatons qu'au moment de la rédaction de l'article, les arrêtés royaux de 2007 ne sont pas encore d'application.

IV.1.3. Rattachement hiérarchique

L'arrêté royal du 17 août 2007 relatif à la création du CAAF a aboli l'obligation d'avoir un comité d'audit dans chaque entité fédérale. Chaque responsable d'audit interne doit par conséquent rapporter directement à la direction de son organisation. Il rapporte aussi au CAAF pour tout ce qui concerne l'organisation, la planification et l'efficacité de ses activités en matière d'audit interne, ainsi que pour les dysfonctionnements non résolus en interne ayant un impact important sur la perception des tiers (membres du Gouvernement, Parlement, opinion publique, Union européenne) pour répondre au principe de subsidiarité [62].

IV.2. L'audit interne à la Communauté française

L'enquête a analysé la fonction d'audit interne au sein du ministère de la Communauté française (CF) et de neuf organismes publics.

IV.2.1. Mandat

Il n'existe actuellement pas de cadre réglementaire permettant de formaliser et de généraliser les missions d'audit interne au sein du ministère et des organismes qui dépendent de la Communauté française. Depuis 2003, un décret rend certes les activités d'audit interne obligatoires pour l'ensemble des organismes publics,[63] mais ce texte ne s'applique pas aux autres services administratifs de la Communauté française. Le Gouvernement de la Communauté française souhaite étendre progressivement les activités d'audit interne à l'ensemble des administrations, compte tenu des réserves émises par celles-ci vis-à-vis de l'évaluation. Les missions d'audit interne sont initiées essentiellement à la demande des services administratifs.

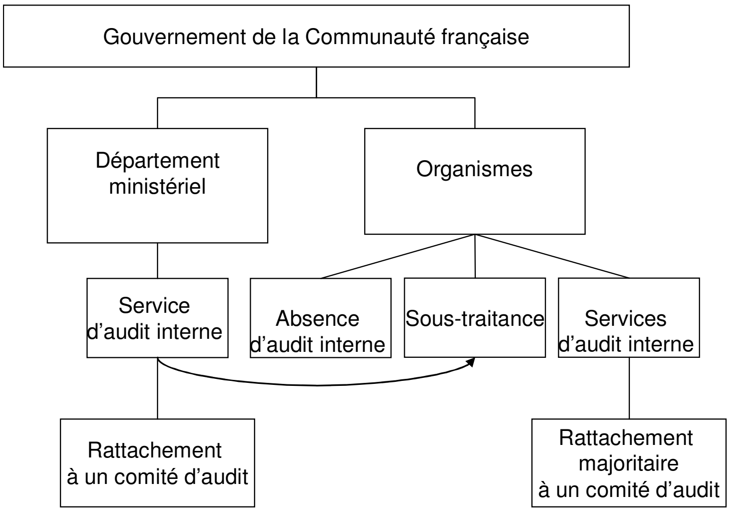
60 Surtout concernant les missions de contrôle externe stipulées dans l'AR du 16 novembre 1994. Une révision est prévue ultérieurement.
61 AR du 17 août relatif aux activités d'audit interne, op.cit., article 16.
62 AR du 17 août 2007 portant sur la création du CAAF, op.cit., Titre Premier.
63 Décret du 21 février 2003 relatif à la transparence, à l'autonomie et au contrôle des organismes publics, des sociétés de bâtiments scolaires et des sociétés de gestion patrimoniale qui dépendent de la Communauté française, Article 24 « Une cellule d'audit interne est instaurée dans chaque organisme public ».

C'est dans ce contexte que le ministère de la Communauté française a créé le 1er avril 1998 une cellule d'audit interne, le Service Général d'Audit Budgétaire et Financier (SGABF), suite à un rapport élaboré par des consultants externes à la demande du Secrétaire général du ministère. La légitimité du SGABF repose, d'une part, sur une charte d'audit interne qui définit et officialise sa position et ses missions dans l'organisation, d'autre part, sur une évaluation systématique de la qualité de sa gestion, de son efficacité et de son professionnalisme. L'équipe adopte notamment les techniques de l'audit participatif avec les fonctionnaires du ministère et les modèles d'auto-évaluation, ceci afin de favoriser une véritable culture d'ouverture et d'évaluation. Le SGABF est actuellement composé de douze personnes formant une équipe pluridisciplinaire regroupant juristes, comptables, sociologues et économistes, et ayant reçu une formation spécifique en matière d'audit et de gestion des risques[64].

Par ailleurs, le SGABF effectue des missions d'audit interne récurrentes au sein de deux organismes publics, dans le cadre d'une convention avec le ministère, la sous-traitance étant justifiée par le nombre réduit d'effectifs dans chaque organisme[65].

IV.2.2. Structure organisationnelle

Schéma 3 : organisation de l'audit interne à la Communauté française, 2008



Le cadre structurel de l'audit interne à la Communauté française est caractérisé par un audit décentralisé. Les organismes publics qui développent des activités d'audit interne adoptent pour la plupart une structure élémentaire avec une seule personne. Deux organismes publics sous-traitent leurs activités d'audit interne au SGABF[66].

64 Voir site du SGABF : www.audit.cfwb.be
65 Le Fonds Ecureuil et l'Institut de la Formation en Cours de Carrière (IFC).
66 Il serait peut-être intéressant de faire remarquer ici qu'un processus de contact entre le SGABF et le Corps interministériel des commissaires (ceux-ci supervisent les activités des organismes publics) vient de s'initier au moment de l'enquête pour discuter des activités et bonnes pratiques en matière d'audit interne. Si le champ d'application du SGABF tend à s'étendre pour l'ensemble des organismes publics, la structure d'audit de la Communauté Française évoluera sans doute vers une structure plus centralisée.

IV.2.3. Rattachement hiérarchique

Le SGABF est placé au sein du Secrétariat général du ministère et rend compte au Comité d'audit du ministère[67]. Ce Comité est composé des ministres (ou de leurs représentants) de la Communauté française, des administrateurs généraux du ministère, du responsable du Service d'audit interne, et des Inspecteurs des Finances accrédités auprès de la Communauté française avec voix consultative. Des représentants de la Cour des Comptes peuvent également assister au Comité d'audit, mais à titre d'observateur. Le comité d'audit est présidé par le Secrétaire général du ministère et se réunit deux fois par an[68].

S'agissant des organismes publics, le décret de 2003 stipule que la cellule d'audit interne au sein de chaque organisme relève directement du fonctionnaire dirigeant. Ce dernier doit cependant veiller à mettre la cellule d'audit interne à l'abri d'ingérences qui pourraient compromettre l'exercice de ses missions en toute indépendance et objectivité[69]. Or, à la lumière de notre enquête, nous constatons que la plupart des services d'audit interne des organismes de la Communauté française sont de fait rattachés à un comité d'audit.

IV.3. L'audit interne à la Région wallonne

Le Gouvernement de la Région wallonne (RW) dispose de deux ministères (le ministère de la Région wallonne et le ministère de l'Equipement et des Transports) et d'une quarantaine d'autres organismes publics. L'analyse au niveau de la Région wallonne porte sur les deux ministères et trente-quatre organismes publics (les agences, les sociétés, les ports autonomes, les centres hospitaliers et quelques autres entités de nature diverse)[70].

IV.3.1. Mandat

La Région wallonne ne dispose pas jusqu'à présent d'un cadre global permettant d'organiser les activités d'audit interne dans les administrations wallonnes. Les activités d'audit interne se manifestent le plus souvent suite à une pression des institutions européennes, en particulier dans le cadre des fonds structurels et agricoles[71]. Notre enquête révèle que la Région wallonne a souffert jusqu'à présent d'un manque de soutien politique au développement d'activités d'audit interne. La situation semble toutefois évoluer positivement suite au plan de fusion des deux ministères de la Région wallonne qui prévoit l'instauration d'un service d'audit interne pour le ministère unique.

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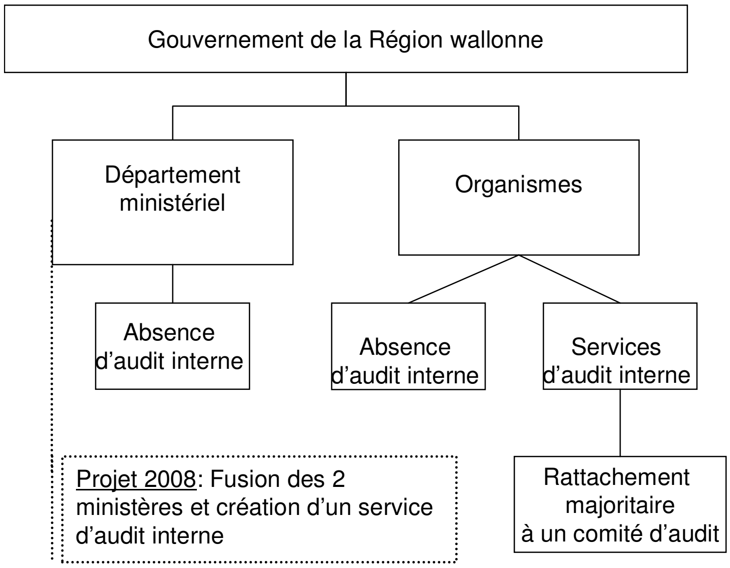
67 *Ibidem.*
68 Charte d'audit interne du ministère de la Communauté française.
69 Décret relatif à la transparence, à l'autonomie et au contrôle des organismes publics, des sociétés de bâtiments scolaires et des sociétés de gestion patrimoniale qui dépendent de la Communauté française, op.cit., article 26.
70 Pour des informations plus précises, voir site de la Région wallonne, www.wallonie.be.
71 Voir, par exemple, le contrat d'administration du 14 janvier 2004 entre le Gouvernement wallon et le Gouvernement de la Communauté française, d'une part, et le Corps interfédéral de l'Inspection des Finances, d'autre part, pour l'exécution d'une mission d'audit des systèmes de gestion et du contrôle des programmes cofinancés par les Fonds structurels européens (période 2000-2006), publié au Moniteur Belge le 1er juin 2004. On peut aussi citer l'exemple du service d'audit interne de la Direction générale de l'Agriculture au ministère de la Région wallonne. Les activités d'audit interne sont obligatoires dans la règlementation européenne pour les organismes payeurs des subventions agricoles. A noter que les missions d'audit interne dans ce contexte sont essentiellement du type financier. Voir également l'Accord administratif bilatéral en projet, relatif à la coopération en matière d'audit interne entre la Commission européenne et le Corps interfédéral de l'Inspection des Finances, pour les programmes relevant des Gouvernements de la Région wallonne et de la Communauté française de Belgique.

IV.3.2. Structure organisationnelle

Schéma 4 : organisation de l'audit interne à la Région wallonne, 2008



Il y a actuellement très peu d'activités d'audit interne en Région wallonne. On les retrouve dans moins d'un tiers des organismes publics répertoriés dans l'enquête. La plupart sont très récents ou viennent de se créer.

Les deux ministères ne disposent pas à l'heure actuelle d'un service d'audit interne. En 1998, le gouvernement wallon a demandé à la Division d'Aide à la Gestion (DAG), localisée au sein du ministère de la Région wallonne, de mettre sur pied un service transversal d' « audits permanents » au sein des deux ministères. La DAG exerçait cette mission de façon indépendante vis-à-vis du management des entités : elle rapportait directement au Gouvernement wallon et non à la fonction dirigeante du ministère de la Région wallonne à laquelle elle est structurellement rattachée. Une expérience pilote d'une durée de deux ans a été réalisée sur un échantillon de services appartenant aux deux ministères en vue d'établir de manière officielle et permanente ces activités d'audit. Le changement politique au sein du Gouvernement suite aux élections régionales n'a pas permis de concrétiser cette expérience ressentie pourtant comme positive par l'administration en général. Depuis lors, aucune activité d'audit interne n'a été entreprise au sein des deux ministères. La DAG a poursuivi d'autres projets pilotes à la demande du gouvernement, notamment dans le domaine des démarches Qualité et du Balanced Scorecard.

Le Gouvernement wallon a récemment décidé de fusionner les deux ministères. Cette restructuration, en cours actuellement, propose en l'occurrence un service d'audit interne chargé d'évaluer et d'améliorer les dispositifs de contrôle du ministère unique. La DAG et les autres acteurs impliqués dans ce projet relatif à l'audit interne expriment clairement leur volonté d'avoir un cadre légal fort en matière d'audit interne, et la présence d'un comité d'audit au sein du futur grand ministère.

IV.3.3. Rattachement hiérarchique

Les services d'audit interne des entités de la Région wallonne sont caractérisés par une structure simple, rattachés le plus souvent à un comité d'audit.

IV.4. L'audit interne à la Communauté flamande

IV.4.1. Mandat

Les activités d'audit interne dans l'Administration flamande ont été rendues obligatoires par l'arrêté du Gouvernement flamand du 8 septembre 2000 lequel crée un service d'audit interne au sein du Ministère de la Communauté flamande. Ensuite, l'arrêté du 16 avril 2004 a transformé ce service en une agence « autonomisée » interne sans personnalité juridique, sous le nom d'« Agence d'Audit interne de l'Administration flamande » (IAVA), laquelle a également compétence sur les agences internes et externes de la Communauté flamande et de la Région flamande.

L'agence a pour mission, d'une part, d'être un partenaire indépendant, objectif et compétent dans la gestion des départements, des agences autonomisées internes et externes de droit public et, d'autre part, d'évaluer leur système de contrôle interne respectif, de vérifier s'il est adéquat et efficace, et de formuler des recommandations visant à l'améliorer. L'IAVA peut également effectuer de son propre chef ou sur la demande de tiers, des examens administratifs auprès des entités précitées.

Le Titre 2 de l'arrêté précité transforme également le Comité d'audit de la Communauté flamande en Comité d'audit de l'Administration flamande, lequel a également compétence sur les agences internes et externes de la Communauté flamande et de la Région flamande.

La gestion de l'agence est réglée dans un contrat de gestion établi entre l'agence et le Comité d'audit de l'Administration flamande.

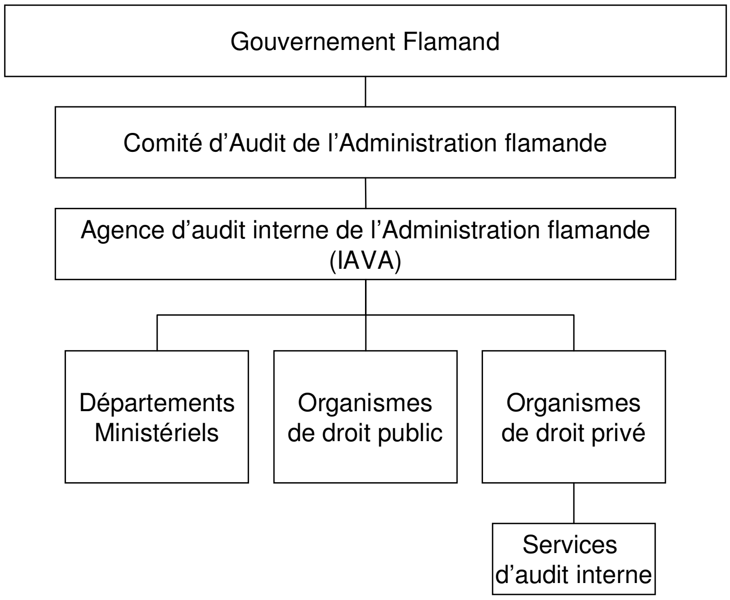
IV.4.2. Structure organisationnelle

Le dispositif institutionnel de la Communauté flamande en matière d'audit interne repose sur une structure organisationnelle très centralisée : toutes les activités d'audit interne des départements ministériels et organismes publics sont effectuées par une seule entité, l'IAVA, qui rapporte directement au Comité d'audit central. Le Comité d'audit compte neuf membres incluant deux membres du Gouvernement flamand, cinq experts indépendants et deux représentants des domaines politiques et se réunit au moins six fois par an.

Malgré l'existence de l'IAVA, six agences externes de droit public ont maintenu leurs services d'audit interne[72]. L'IAVA peut effectuer des missions d'audit auprès de ces dernières à son initiative personnelle ou à la demande de tiers. L'IAVA agit alors surtout dans le cadre de missions d'audit en matière de fraude. Dans ce contexte, on peut se poser la question si l'IAVA n'agit pas plutôt en tant qu'agent du contrôle externe pour le compte de l'exécutif.

72 VDAB, VRT, VMSW, De Lijn, De Scheepvaart , Waterwegen & Zeekanaal.

Schéma 5 : organisation de l'audit au niveau de la Communauté flamande, 2008



IV.4.3. Rattachement hiérarchique

L'IAVA est rattachée au Comité d'audit, lequel assure la supervision directe, l'évaluation et l'indépendance de l'agence.

V. Synthèse et conclusion

Schéma 6 : table de synthèse des derniers développements en matière d'audit dans le secteur public belge, 2008

	Audit interne obligatoire ?	Type de structure d'audit	Rattachement hiérarchique pour la majorité des activités d'audit interne
Fédéral	oui	centralisée	Comité d'audit central et direction de l'entité concernée
Communauté française	hybride	décentralisée	Comité d'audit de l'entité concernée
Région wallonne	non	décentralisée	Comité d'audit de l'entité concernée
Gouvernement flamand	oui	centralisée	Comité d'audit central

Les activités d'audit interne sont obligatoires pour l'ensemble des administrations flamandes et fédérales et pour les organismes publics à la Communauté française. Pour les autres services administratifs, les activités d'audit interne se développent le plus souvent suite à une crise majeure ou à la pression de la règlementation européenne, dans le cadre des subsides européens. Actuellement, les activités d'audit interne sont proportionnellement plus rares dans les administrations wallonnes et fédérales.

Les autorités flamandes et fédérales organisent les activités d'audit interne de manière centralisée. Le processus de centralisation des activités d'audit interne est toutefois plus accentué dans l'Administration flamande car l'exercice de la totalité des activités d'audit interne est effectué par un seul acteur, l'IAVA. Dans le cas de l'Administration fédérale, quoiqu'il y ait plusieurs acteurs « centraux » en matière d'audit interne, la gestion des activités d'audit interne et l'audit de l'audit restent du ressort des administrations. Ne remontent au niveau du CAAF et de l'exécutif fédéral que les dysfonctionnements non résolus dans les administrations fédérales selon le principe de subsidiarité. La structure centralisée au niveau fédéral n'est pas encore d'application. Dès lors, ne faudrait-il pas également s'interroger sur les conditions de faisabilité des dispositifs institutionnels proposés par les cinq arrêtés royaux en matière d'audit interne par rapport à l'environnement fédéral ?

La Région wallonne et la Communauté française ne proposent pas de cadre global en matière d'audit interne. Les activités d'audit interne se développent dans ces cas-là dans une structure décentralisée.

Une structure décentralisée en matière d'audit interne est souvent préférable dans le cas où les entités et services d'audit interne sont récents, ceci afin de mieux connaître l'environnement de chaque entité[73]. On est donc dans une sorte de phase d'apprentissage, ce qui permet de procéder avec plus de souplesse et d'efficacité sur le terrain. On constate également qu'il y aura, dans ce contexte-ci, le besoin ultérieur d'un acteur central en charge d'uniformiser et de coordonner les principes et méthodes d'audit interne[74]. L'évolution de l'audit interne à la Communauté française avec le SGABF est un phénomène intéressant à suivre dans ce sens. Chaque autorité publique concernée est bien sûr libre de choisir la formule la plus adéquate, mais la raison principale de son choix est souvent tributaire de l'environnement institutionnel et culturel dans lequel se déploient les services d'audit interne.[75]

Enfin, les services d'audit interne sont en grande majorité rattachés à un comité d'audit. Les autorités fédérale et flamande ont chacune créé un comité d'audit transversal qui supervise l'ensemble des activités d'audit interne dans leurs administrations respectives et qui rapporte directement aux membres du gouvernement concerné. Dans ce contexte, on peut envisager l'hypothèse suivante pour des recherches ultérieures : plus la relation d'agence remonte au niveau de l'exécutif, plus le processus de centralisation en matière d'audit interne conduit à renforcer la position de l'exécutif, ce dernier devenant le principal ou le donneur d'ordre exclusif pour l'auditeur interne, c'est-à-dire son client ou destinataire. Mais une telle perspective pourrait aboutir à ce que l'auditeur interne occupe en fait le rôle d'auditeur externe ou soit perçu comme tel aux yeux du management de l'organisation.

73 J. RENARD, op.cit., p. 370.

74 M. STERCK et al., 2005, p. 138. ; J. RENARD, *ibidem.*

75 J. RENARD, op.cit., p. 367. A titre d'exemple, les auteurs DIMAGGIO&POWELL (1983) et MEYER (1994), utilisent la théorie institutionnelle pour expliquer les déterminants de l'organisation et missions des services d'audit interne dans les organisations (M.ARENA, G.AZZONE, « Internal Audit Depertments: Adoption and Characteristics in Italian Companies », *International Journal of Auditing*, 2007, Vol. 11, p. 91)

1.3. Supplements

Following the final dissertation investigation, we noticed that the French Community ministry had not implemented an IA program on a voluntary basis as mentioned in the paper: it was required in the founding legislation enacting the ministry in 1997[76]instead.

Some updates since the publication of the article merit reporting. At the Walloon regional level, an audit committee and an IA program were established in 2010 in the ministry; this followed the merger of its two previous ministerial departments that came about as a result of its foundation act[77] of 2008. At the federal level, the IA adoption rate increased slightly. Furthermore, the federal central audit committee made a very recent proposal (2011) to centralize all federal internal audit programs under its supervision into one external service, such as the IAVA at the Flemish administration. As of this writing, this proposal has not been approved by the federal government. As is clearly explained by the qualitative study in Chapter 3, this new proposal likely discourages the remaining federal ministerial departments from developing their own IA program, while contravening and then discrediting the federal IA royal decrees.

To update the article, it is important to note that at the Brussels regional level, both an audit committee and an IA program have been established in its regional ministry following a decree of the Brussels regional government in 2003.[78] To date, in Belgium, local authorities do not require entities under their supervision to implement internal audit programs, despite recent decrees that required municipalities and some other local entities to implement or improve internal control systems[79]. IA programs covered by our dissertation investigation reported in the next chapters are implemented at the entity level on a voluntary basis or as a result of specific IA requirements, in particular in local cooperatives. Notwithstanding this, the dissertation's empirical investigation noted that the local levels have the least developed IA programs and that confusion between internal control, quality audits and the internal audit is high. This was true at least in Brussels and Wallonia[80]. In Flanders, the emergence of an external service provider called "Audio" merits mention. This service provides internal audit services for more than twenty public entities working in the local social welfare sector. This service was established following title 8 of the local decree, called the "OCMW-decreet" of 19

76 See "Arrêté du Gouvernement de la Communauté française du 7 juillet 1997 fixant le cadre du personnel des Services du Gouvernement de la Communauté française - Ministère de la Communauté française (MB 1997-09-05)".
77 See "Arrêté du Gouvernement wallon du 1er février 2007 (relatif au cadre organique du Service public de Wallonie – AGW du 5 décembre 2008, art. 1er)".
78 See "Arrêté du Gouvernement de la Région de Bruxelles-Capitale du 11
avril 2003 relatif à l'organisation de l'audit interne au Ministère de la Région de Bruxelles-Capitale".
79 See for instance the "Gemeentedecreet" (art.99, MB 31.08.2005) for Flanders and the "Ordonnance du 5 mars 2009 modifiant la nouvelle loi communale » (art. 263, MB 13.03.2009) for Brussels.
80 Flanders was not investigated further in the disseratation as it will be explained in the following chapter.

December 2008 as a pilot project to audit some public entities working within the local social welfare sector. In 2010 this service became a separate legal entity while extending its internal audit services to other local entities willing to carry out internal audits, including municipalities[81].

To conclude, this chapter analyzed the different structural IA institutional frameworks at the federal, regional and local levels in Belgium. Results showed that differences are apparent in the way IA is institutionally organised at the different government levels. This likely directly influences the adoption and profile of most IA programs of public entities examined in the following chapters. In the same way, it was important that we introduced the official definition of the IA profession, since it is used throughout the dissertation as our normative referential. Both the legal IA mandates and the normative IA referential are explicit components of an institutional perspective which will be used as a part of the theoretical framework discussed in the following chapter. These are important driving forces prompting public entities to adopt and shape IA programs. This will be demonstrated throughout the dissertation. Results also showed that, in order to increase the likelihood that public entities will adopt IA programs and professionalize them, these should be accompanied by other forces, such as constraints and managerial capacity.

81 Municipalities of Eeklo, Turnhout, Brugge and Kortrijk.

2. The Determinants of Internal Auditing within Belgian Public Entities: a Neo-Institutional and New Public Management Perspective Using a Fuzzy Set Analysis

Within the context of managerial reforms in the Belgian public sector since the 1990, the internal audit function is viewed as a new managerial instrument to reinforce the reliability of an organizational internal control system and has been sporadic spread amongst public entities. The main research question addressed here is to identify to what extent the institutional theory combined with new public management doctrine, in particular public organizations autonomy attributes, explains the motivation of Belgian public entities' choices to adopt and professionalize an Internal Audit (IA) program. Public entities in this dissertation encompass departments, large municipalities and decentralised agencies operating under the oversight authority of a public agent, including public companies, cooperatives and specific public institutions.

The main empirical findings contribute to institutional research dealing with managerial practice at the very early stage of its institutionalization process. This takes place in a context of strong variation in terms of IA regulation and organizational capacity. On the one hand, in line with most institutional studies, the diffusion process of the IA program will be examined. On the other hand, the post-adoption life of internal audit activity is also analysed in order to discover its sustainability and professionalization within public organizational settings. This dissertation also intends to bring public sector awareness in internal audit research which is rare until now.

This chapter is divided into the following sections:

(1) The context and the main research question;

(2) The complete theoretical framework including the main theories used and the hypotheses;

(3) The empirical approach, including the methodology, the population of cases and the operationalization of the variables;

(4) The analysis of the empirical findings;

(5) The summary of the main research findings.

Further justification and technical methodological aspects where relevant are to be found in appendices.

2.1. Context and research question

Internal auditing in the Belgian public sector

Internal audit (IA) practices in Belgian public entities are characterized by the following features: by their very young character (average 6 years, median 5 years or less[82]) and scarcity; by the heterogeneous situations that exist concerning organizational choices pertaining to the adoption, characteristics and professionalization of these functions; and by IA policies enforced by public authorities, upon which public organizations are dependent (Van Gils et al.2008). Most IA activities in the Belgian public sector have been established following recent public managerial reforms in order to increase the managerial accountability, performance and control of public administrations. For instance, the so-called "Copernicus Reform" for the federal government as well as the "Better Governmental Governance Reform" for Flanders have set the focus on a modern Human Resource Management, a restructuring of the ministries, a decentralization of the responsibilities into the hands of agencies, and a new budget and control system (Pollitt and Bouckaert, 2004). Following these reforms, IA activities are mandatory for all ministerial departments and for some agencies at the federal and Flemish levels. These internal activities are organised in a centralised regulatory and working framework, including a centralised audit committee. Since 2003, most agencies under the supervision of the French Community authority are required by a decree to implement an IA program. At local levels and the Walloon region, IA services work autonomously; they generally arise either on a voluntary basis, for instance in reaction to fraud, or to fulfil European or specific industry requirements.

According to our 2010 national survey that included federal, regional and local entities in the Belgian public sector, most of the public entities we surveyed were at an initial level of sophistication in terms of IA standard practices (54%)[83]. These included also IA programs that had been in existence for more than ten years. Only a few (8%) had achieved a high degree of sophistication. Furthermore, when comparing the overage score pertaining to the capability dimension of "Professional practices", "Governance structure" and "Human resource practices", the "Human resource practices" dimension shows the lowest score (55% and 53% against 41% respectively).

82 Full detail of the survey, see appendix Enquête 2010 sur l'audit interne dans les entitiés publiques.
83 *Ibidem.*

Evolution of the IA practice

On the whole, the IA professional standards are still evolving because the profession is young compared to other internal administrative functions within the organizations. Its scope of activities has been gradually enlarged to cover all functions within organizations, to respond to new management concerns (Renard, 2008). Major empirical studies launched at the beginning of the 2000s in both the public and private sectors show a slow shift of the IA function toward more consulting services, much to the detriment of its principal role of assurance (Goodwin, 2004; CBOK, 2006; Paape, 2007). More particularly, research studies on IA confirms an extension of IA's role in corporate governance, driven mainly by the increased attention for "good governance" and the resulting regulation, codes of governance, and guidelines. Its growth has also been influenced by international internal control standards such as COSO/ERM[84]and INTOSAI[85] that have made risk management and international internal control frameworks a significant contribution to corporate governance (Krogstad, 1999; Bou-Raad, 2000; Sarens, 2009). We also wonder whether the current worldwide financial crisis is likely to affect these trends on IA practice[86]. With regard to addressing major concerns within public administrations, the public reforms, inspired by New Public Management (NPM) doctrines, demand improved accountability of public services. This is not simply in terms of their conformity or compliance to legally acceptable processes, but is now also measured in terms of results-based performance (Power, 1999, OECD, 2005, Pollitt and Bouckaert, 2004). These new public concerns likely are also to affect the scope of IA missions within the public sector context, for instance with a gradual emphasis on performance audits to the detriment of compliance audits.

Research on IA and public organizations

As a research area in administrative sciences, IA is very new, and concentrates mainly on private companies. To date, very few studies have addressed IA in the government arena, in either the public and private sectors together (see for instance Goodwin, 2004; CBOK 2006; Mat Zain and Subramaniam, 2007) or within the public sector alone (see for instance Carhill et al. 1989; Coupland, 1993; Rittenberg and Covaleski, 1999; Selim, 2000; Sterck et al. 2005; Sterck and Bouckaert, 2006; IIA, 2006; Van Gils et al. 2008). Most of this research has been either largely descriptive or has failed to involve public administration theories

84 Committee of Sponsoring Organizations of the Treadway Commission/ Enterprise Risk Management.
85 ISSAI—International Standards of Supreme Audit Institutions—INTOSAI Guidance for Good Governance.
86 See Global Audit Information Network (GAIN), Knowledge Alert (2009), *The Financial Crisis and Its Impact on the Internal Audit Profession*, The Institute of Internal Auditors Research Foundation.

adequately when interpreting empirical findings[87]. This is true even though numerous socio-political authors note that public administrations have their own rules or features which have direct implications for their managerial capacity and control, and thus on their organizational behaviour (Rainey, 1989; Bozeman, 1987; Verhoest et al. 2004; Lonti, 2005). Consequently, the current research is an attempt to come to a better understanding of IA practices within the context of public administrations, closely in line with public administration theories.

Organizational theories

They are numerous general organizational theories to explain administrative motivation for structural and functional expansion, such as rational models like the agency theory (e.g. Jensen and Meckling, 1976), transaction cost economics (e.g. Williamson, 1981; 1985), population ecology (e.g. Hannan and Freeman, 1989), resource dependence theory (e.g. Pfeffer and Salancik, 1976) and so on. All of these perspectives have their merits and could be useful in explaining some aspects of organizational change based on material/technology driving factors (Scott et al.1994). Notwithstanding this, an institutional oriented perspective is imperative, we suggest. As certain theorists note (e.g. Scott, 1995), although all entities are shaped by both technical and institutional forces, some types of organizations are more susceptible to certain types of pressure than to others. Indeed, as numerous political scientists have stressed, public administrations are subject to more elaborate institutional constraints and political pressure than are business organizations; therefore, they are less flexible and autonomous in reacting to immediate environmental factors (Tolbert, 1985; Rainey and Bozeman, 2000; for a review: Rainey, 1989). In other words, we think that focusing mainly on the organizational institutional environment is more appropriate for explaining the choices of IA practices by Belgian public administrations.

Institutional theories on organizations mainly call attention, as institutionalists explained,

> …to the role of formal actors and related regulations in stimulating and supporting the growth of formal organization, independent of the direct effects of technological complexity of the surrounding organization. Organizations adapting their structure to fit their related institutional environment and norms will be regarded as more legitimate in the views of many different internal and external parties in contemporary society than those organizations which carried out using a more traditional or informal structure. (Scott et al.1994:p115; Zucker, 1987; Meyer and Rowan, 1977)

The quest for legitimacy is central within an institutional perspective (Powell, 2006) and an institution, within this perspective, is seen as a "system of rules, beliefs, norms and organizations that can jointly generate a regulatory of behaviour in a social situation" (Greif,

87 Van Helden (2005) also emphasized the quasi-absence of specific theory related to public sector management in general management accounting research.

2006 as quoted by Colyvas and Powell, 2006:306). Contemporary organizations are motivated to change when there are factors that are likely to damage their legitimacy and survival position. In other words, contemporary organizations are induced to implement standard organizational models and managerial practices institutionalized in society, independent of the direct efficiency expected from these changes. Meyer and Rowan (1977:340-4) capture nicely this phenomenon:

> Institutionalization involves the process by which social processes, obligations, or actualities come to taken on a rule-like status in social thought and action. … Institutionalized products, services, techniques, policies and programs function as powerful myths, and many organizations adopt them ceremonially. … Such rules may be simply taken for granted as legitimate or may be supported by public opinion or the force of law, … apart from evaluation of their impact on work outcomes.

Taking all what has been argued above into account, we assume here that public organizations in our context will be primarily motivated in their choices over IA activities by the goal of reducing threats to legitimacy that jeopardize their organizational survival position. Therefore an institutional explanatory model will be used in this research.

A neo-institutional sociological perspective

The emphasis on institutional myths and resulting legitimacy as drivers for organizational change, is not that new (Scott, 1994; for political sciences, see Peters, 1999). This perspective has proven to be a valuable explanatory framework to understand modern organizational behaviour in various sectors, including large corporations, railroads, law firms, high-tech companies, and public sector organizations (see for instance: Blom-Hansen,1997; Torfing 2001; Meyer, 1979; Dobbin et al.1988; Scott, 1987; Tolbert and Zucker, 1983).

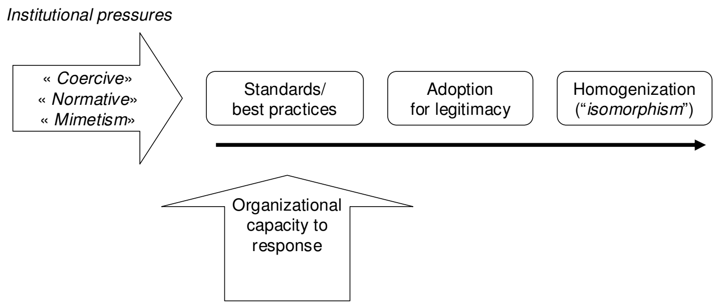
Of particular importance to us is the neo-institutional sociology perspective based on the pioneering work of DiMaggio and Powell (1983; 1991), which has been applied to both private and public organizations (Frumkin and Galaskiewicz, 2004; Van Gestel and Teelken, 2006), as well as used for IA research (Gupta et al.1994; Arena and Azzone, 2007). This new sociological branch of the institutionalism theory tends to explain why modern organizations are so homogeneous and what the institutional factors are which are likely to influence and diffuse this evolution (DiMaggio and Powell, 1983). DiMaggio and Powell (1983) suggest the concept of isomorphism (similarity) to explain administrative change within an organization. Institutionalists define isomorphism as a constraining process that forces an organization to resemble other organizations facing the same institutional pressures. The concept of isomorphism is not unique to the two authors. It has been used by other authors from different perspectives to explain organizational change (Meyer and Rowan, 1977, Aiken and Hage, 1968, Hawley, 1968, Thompson, 1967, Osborne and

Stephen, 1998). The neo-institutional authors see "organizations as greatly conditioned by their general institutional environments and therefore as institutions themselves in part" (Meyer and Rowan (1977:p346). In the long run, DiMaggio and Powell (1983) predict that there will be a convergence of the isomorphic behaviours, creating a homogenization of organizational structure and practices. As further explained by the same two authors (1983: p148): "In the initial stages of their life cycle, organizational fields display considerable diversity in approach and form. Once a field becomes well established, however, there is an inexorable push towards homogenization." Most empirical research in this context has tended to view public sector organizations more as actors driving the institutionalization of other organizations toward greater levels of homogeneity, sometimes through their control of funding, and sometimes by exercising their power to regulate, rather than as themselves being the objects of institutional pressures (Frumkin and Galaskiewicz, 2004). Above all, because all public entities are working under the supervision of a public authority such as a decentralised agency, and performing under the supervision of a public administration and related executive politicians, their operational environment is likely to be more constraining than it is for private entities. Therefore these entities are likely to be more responsive to those institutional pressures imposed by their parent or supervising institutions. As DiMaggio and Powell noted, in this constraining environment, "the greater the dependence of an organization on another organization, the more similar it will become to that organization in structure, climate and behavioural focus… A position of dependence leads to isomorphic change" (1983:154; see also the dependency theory, more particularly Pfeffer and Salancik, 1978). Thus, another original scientific feature of this dissertation lies in our focus on public entities when examining behaviour susceptible to institutional pressure.

Bringing organizational characteristics into the institutional perspective

Early institutional studies tended to emphasize the effects of institutional context across all organizations within a given environment, without considering the organizational diversity (Scott, 1995). Surprisingly, only later did institutional studies begin to emphasize the individual differences (Scott, 1995). As institutionalists subsequently pointed out, "whether and how organizations responded depended on their individual characteristics or connections" (Scott, 1995:114). This concern is closely in line with political scientists' earlier remark concerning the direct implication of internal specific characteristics of public administrations to explain managerial practices. Therefore organizations will react differently to institutional pressures according to certain organisational differences. Figure 2 shows the direct implication of organizational attributes in the institutional framework.

Figure 2 Link between institutional pressures and organizational capacity



Thus a homogenization or heterogenisation of the related practice is likely to appear (Carpenter, 2001, Osborne 1998; Scott, 1995). The diverging of trends toward homogeneity or toward heterogeneity is however not perceived as contradictory or paradoxical by institutionalists. As argued by institutionalists, there are various institutionalization stages and multi-level processes which may explain heterogeneous situations with regard to a standard toolkit of managerial practices as soon as it is implemented in the organization (Colyvas and Powell, 2006). As Meyer et al. explained (1977:354-7), conflicts with institutional requirements and technical efficiency are likely to arise, producing inconsistencies such as those between the institutionalized rules themselves, or conflicts with "the logic of efficiency", or because "institutional rules are written at high levels of generalization whereas technical activities vary with specific, unstandardized, and possibly unique conditions". Because IA programs are very young in the Belgian public sector, with an average of 6 years of existence, this research will thus contribute directly to institutional research by testing institutional pressures in the earlier stages of the institutionalization of a managerial practice, by assuming that there will be divergent responses with regard to IA institutional requirements arising from differences between public entities.

More particularly, this research uses specific internal public organizational variables suggested in public organization theories to complete the DiMaggio and Powell's institutional framework to explain public administrative choices with regard to IA programs fostered by institutional pressures. To explain internal auditing development, variables which are very specific to the public sector will be used as enabling stimuli, as well as the institutional variables. Attempts to define and categorize the variety of public entities on various dimensions have been numerous and varied in the academic literature, such as taxonomies based on the tasks, state activities and functions or roles (Roness, 2007). The taxonomy of public organizations based on the notion of autonomy is very relevant for the context. It is an analytical concept which measures the increasing distance of the state organization from the core government in various autonomy features. As noted by a political scientist, “these features seem to interact in a complex way with the institutional forces and they function like moderating and intermediate variables” (Verhoest et al.2007:p487). Their notion of autonomy is very appropriate for our research for the following reasons. First, these autonomy features are constructed on a public sector perspective with regard to the notion of autonomy. More precisely, this notion focuses on various dimensions of autonomy of a public entity with regard to its political oversight authority. Second, the autonomy attributes suggested by these authors are very appropriate to our research context since these are dealing directly with organizational capacity, control and related legitimacy issues. Third, because this notion of autonomy focuses on the relationship with the political oversight authority in multi-dimensional aspects of autonomy, it will refine the position of dependence as stressed above by institutionalises. Fourth, international comparative research studies such as COBRA[88] (Comparative public organisation data Base for Research and Analysis) have conducted similar reasoning to explain the administrative behaviour of Flemish agencies in Belgium as well as in other countries (e.g. Ireland, Norway and the Netherlands), making these concepts a good fit for studying other Belgium public contexts, as they do for other national public contexts.

Diffusion and post-adoption life of the IA practice

Measuring the adoption process of the practice (what institutional authors call “the diffusion process”) tells us only a part of the story of its institutionalization process. The study of the practice’s post-adoption life should also be examined. The aim is to capture the concrete multi-stage institutionalization process as mentioned above, as well as the degree of validity of the practice itself as a source of stability or change or abandon. Surprisingly, Bromley et al. (forthcoming) noted that, contrary to institutional studies on the diffusion process of organizational practices, very little research has been carried out to examine the post-adoption life of these same practices. Moreover, as these authors explain, “divergent post-adoption outcomes of organizational practices may be contingent on the process by which adoption occurs and on different rationales invoked by organizations in the same sector.” In other words, the same forces that were driving the motivation of a particular organization to adopt an IA practice are likely to have an impact on the way it will be shaped in concrete organizational settings. A new practice may become a concrete routine part of organizational daily life; another is likely to be isolated from daily operations following Meyer and Rowan’s (1977) “concept of decoupling”. And when the embraced practice is too highly

88 See COBRA website: http://www.publicmanagement-cobra.org/pub/index.htm

decoupled from daily routine life, one of two things happens. Either efforts to create harmonization and consistency will be conducted, or the related practice is likely to be abandoned once the threat to legitimacy is weaker (ibidem). In other words, we also need to know the way the practice is shaped structurally and functionally within the IA adopters themselves, in order to fully capture where the institutionalization process of an IA practice within the Belgian public administrations goes in terms of sustainability and professionalization.

Main research question and contributions

The main research question addressed here is: to what extent does the institutional theory combined with autonomy attributes explain the motivation of Belgian public entities to adopt and professionalize IA programs?

The main empirical findings contribute to institutional research dealing with managerial practice at the very early stage of the institutionalization process in a context of strong variations of IA institutional pressures and organizational capacity. Second, the study will analyse both adoption and post-adoption life of a managerial practice in order to fully capture its institutionalization process. The third main contribution is to create more explanatory research and greater awareness of public specificities in internal auditing research; on the basis of a literature review, these elements remain strongly lacking for this research topic.

2.2. Theoretical framework

This part exposes first the outcomes (dependent variable or phenomenon to be explained); second the conditions (independent variables or "explanatory" factors); third the hypotheses; fourth the methodology used to analyse the data; and fifth the operalization of the model.

Defining the outcomes

Two types of outcomes are defined in this research: the adoption of an IA program and its post-adoption life, which is defined here as IA professionalization.

(i) Defining IA adoption

Two major categories are suggested here: on the one hand, organizations that are adopting an IA program ("IA adopters"); on the other hand, the organizations which do not have any IA program as such ("IA nonadopters".)

By introducing these two categories, this allows us to define what to include and exclude in terms of IA program.

We define an IA program within the framework of this dissertation as the entire activity performed by a staff in order to audit its own entity in line with IA practice as well as the way it is established and managed within the entity. This leads us to be more explicit about what we mean by "IA practice". We all know that some organizations are likely to have internal assurance activities to some extent, such as those carried out by certification assurance programs based for instance on ISO, COBIT and EMAS standards. For the purposes of our study, these internal assurance activities are not considered to be IA practice as such. To follow precisely the logic of an institutional perspective, we consider an IA practice as the explicit profession (or "rational myth" in institutional terms) put forward explicitly by institutional pressures, for instance in a government decree or law. In other words, the IA practice is defined by the actual IIA standards, and no as the internal auditors performing internal audit activities within the framework of assurance programs.

Furthermore, outsourcing is not taken into consideration in the theoretical framework and the empirical test on the basis of the following reasons. First, only a minority of the cases who participated in our survey had outsourced their IA programs (6%). These cases then are not the most representative to the dissertation research context in terms of IA program. In the same way, outsourced IA programs mainly performed by a public entity for a group of public entities, such as the Flemish IA internal agency (IAVA), and not for its own operations, are not taken into consideration because this type of external IA service cannot be compared with *internal* IA programs. Second, the cases that outsourced their IA programs will weak the quality of the empirical data seeing that most crucial questions in the survey dealing with features of IA programs including experience and qualifications of the internal auditors were not answered. With this respect, these respondents often admitted that their knowledge on their outsourced IA program and related internal organisation remained weak.

(ii) Defining IA professionalization

Within the "IA adopters" group, various stages of IA adoption are suggested in the current study on the basis of the five "maturity" scale levels taken from the IA Capability Model (IA-CM) (IIA, 2009). This model is an adaptation of the worldwide standard Capability Maturity Model (CMM) self-assessment tool used to assess the level of sophistication of IT systems (see Humphrey, 1989); since then, it has been used more globally to assess the degree of sophistication of other organizational systems and practices.

This model is well suited for this research because it deals directly with the post-adoption of IA practices in terms of their sustainability (its integration within the organisational settings) and their normative professionalization (professionalism to manage IA operations). These concerns are directly in line with the institutional concerns mentioned earlier: on the one hand, the way the IA practices are integrated into concrete organizational settings; and on the other hand, the way they are professionalized in line with the "rational myth" put forward by normative pressures in the context of IA.

To summarize the IA-CM (IIA, 2009), it was constructed on the basis of an extensive literature review along with input from focus groups and workshops from over 50 public and private sector IA professionals from over 20 countries. Essential IA activities ("key process areas") and means to institutionalize them, were identified and regrouped into the five levels of "maturity" scale. Each "maturity" stage corresponds to a set of "fundamental needs" required to enable the organization to evolve towards a more institutionalized and professional IA level. Each "maturity" level constituted the basis for functioning effectively and provided the capability for implementing the next level[89]:

The five "maturity" levels of the IA-CM are:

1. Initial

   The IA tools and procedures are adhoc, not repeatable and not documented. The IA activities are dependent upon the efforts and initiatives of individuals. Auditors are likely part of a large organizational unit. Budget is approved by management as needed. There is no existence of an official IA department in the structure of the

89 That is why the IA-CM framework uses rather the term "capability" than "maturity" when mentioning the five levels.

organization. As a result, without carrying out further institutionalization of these activities, the IA is unsustainable.

2. Infrastructure

   The key challenge in this stage is to establish and maintain processes and procedures that are repeatable and thus possessing the capability to be sustainable. The administrative infrastructure is in place, which means the policies establishing the purpose, authority, and responsibility of the IA program and its reporting relationship within the organization are all present. The IA program starts to identify and recruit people with the required competencies and relevant skills to carry out the work, but there is not yet a clear professional development plan. Periodic plans are provided based on management priorities and/or other stakeholders. Professional practices and procedures are starting to be documented. There is partial compliance with the IIA standard.

3. Integrated

   IA management and professional practices are well established and uniformly applied across the IA program. At this level, the IA program focuses on its capacity, its independence and the professional objectivity of its auditors. IA is starting to align with the organization's business and the risks it faces. Generally conforms to the IIA standards. The IA program is staffed with professionally qualified people and an IA competency and professional plan have been created.

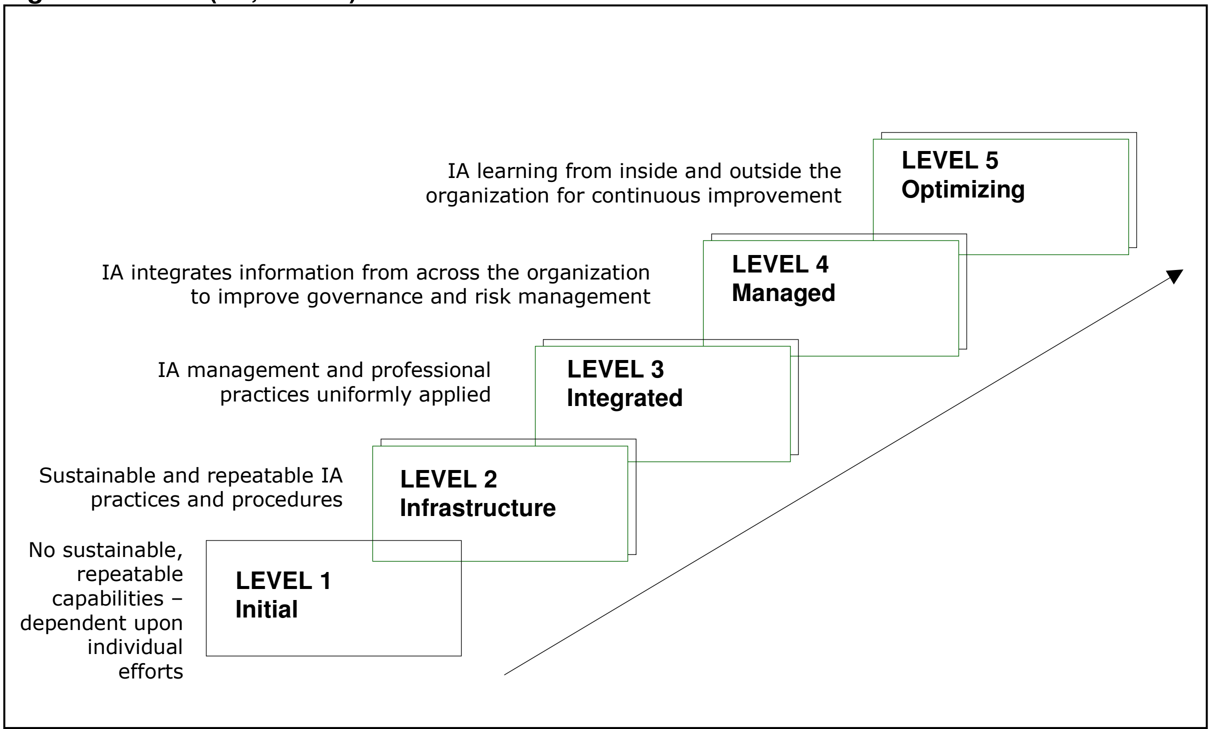
4. Managed

   The IA program functions as an integral part of the organization's governance and risk management. There is an independent oversight body, including members who are independent of the organization's management, to assure the independence of the IA program, broaden the activity's scope of input and influence, and help to strengthen the organization's accountability. It is a well-managed unit and quantitative and qualitative performance metrics are in place to monitor the IA processes and results. Requisite skills and competencies are in place with a capacity for renewal and knowledge sharing (within the IA and across the organization).

5. Optimizing

   The focus is on learning for continuous improvement to enhance capability. An IA program is characterized as a learning organization with continuous process improvement and innovation. The IA governance structure is fully developed. Its independence, power and authority are fully actualized. The IA program reports publicly on its contribution to the organization. The IA program has top-level professional and specialized skills and personnel become key leaders in relevant professional bodies. The IA program understands the organization's strategic directions and emerging issues and risks and aligned its audit plan and requirements to the organization's potential future needs.

Figure 3: IA-CM (IIA, 2009:7)



Processes and output, referred to as key process areas (KPAs) were identified in each maturity level and regrouped into six capability dimensions:

- "Services and Role of IA";
- "People Management";
- "Professional Practices";
- "Performance Management and Accountability";

- "Organizational Relationship"; and
- "Culture and Governance structure".

Each capability level consists of one or more KPAs. These are the main building blocks that determine the capability of an IA program. They identify what must be in place and sustained at that maturity level before the IA program can advance to the next maturity level. Without building the appropriate foundation at one level for implementing a KPA at the next level, that KPA may not be sustainable or able to achieve the outputs and outcomes desired.

With regard to the theoretical framework of our dissertation, each maturity level of this model corresponds to a level of IA post-adoption life or sophistication in an organisation. An index of each maturity stage is based on a selection of proxy indicators taken from the model, in particular in the following three capability dimensions: "People Management", "Professional Practices" and "Governance Structure". These dimensions have been chosen especially because they deal directly with IA managerial professionalization and IA practice structural integration into the organization, in line with our theoretical framework[90].

As it will explained later, the maturity scale levels taken from the Internal Audit Capability Model were simplified in this dissertation into three maturity stages of IA programs and renamed to better suit the dissertation theoretical perspective and empirical data. As a result, IA professionalization is defined in this study into three maturity stages namely unsustainable (instead of "initial"), sustainable (instead of "infrastructure") and professional (a label regrouping the upper maturity stages).

Defining the conditions

To explain the motivation of Belgian public administrations' choices, in terms of IA adoption and IA professionalization, the research will use a combination of two types of conditions: (i) conditions based on a neo-institutional sociological perspective; and (ii) conditions related to public organizational characteristics based on the concept of autonomy.

(i) A neo-institutional sociological perspective

The main theoretical framework of this research is based on DiMaggio and Powell's (1983) neo-institutional theoretical assumption of an isomorphic behaviour of organizations facing similar institutional environmental conditions. To summarize DiMaggio and Powell's (1983) analytical framework, the two authors identify three main institutional forces driving isomorphism. Concerning the relationship between the three institutional factors, there are no predominant factors; these are overlapping and intermingling at various organizational levels.

90 Complete justification of the statistical model construction on the basis of the IA Capability Model is found in appendix.

First, coercive pressure is both formal and informal pressure exerted on organizations by other organizations upon which they are dependent. The coercive pressure refers to the direct or implicit imposition of organizational models in a constraining environment where organizational legitimacy is based rather on their degree of legal fitness than performance. In our context, coercive isomorphism is a direct response from public entities to legal IA mandates, for instance the royal decree called “arrête royal du 17 août 2007 relatif aux activités d’audit interne dans certains Services du pouvoir exécutif fédéral”. This mandated the establishment of IA activities at most federal public entities, the creation of an audit committee and the use of IIA standards and related international frameworks covering internal controls, such as COSO and INTOSAI. The coercive institutional pressure is manifested as the presence of explicit legal IA mandates. Implicit constraining pressures to encourage or force organizations to adopt a given managerial practice are more ambiguous to examine, so we prefer to separate this aspect from what can clearly be captured at this level.

Second, normative pressure is associated with professionalization and is more regarded as an internal driving factor within the organization. Organizations learn about appropriate practice through professional information networks such as professional associations, executive linkages, and other networks which directly influence the management and staff working within the organization (see also Galaskeiwicz and Wasserman, 1989; Haunschild, 1993). Two aspects of professionalization are important sources of homogenization: formal education generating specialists, and, professional networks which define and promote normative rules about organizational and professional behaviour. These standard practices are disseminated to members of organizations through schools, workshops, seminars, training sessions, and through other professional networks, as well as professional magazines (DiMaggio and Powell, 1983; Galakeiwicz and Wasserman, 1989).These authors stressed that normative pressure is a powerful institutional driving force to spread homogenization and professionalization within the organization itself more rapidly. Academic courses and professional training programs on IA in Belgium have been recently created. In addition, the IIA has set up an affiliate in Belgium, the Institute of Internal auditors in Belgium (IIABEL), with a large proportion of its members coming from the European and Belgian public sectors. Specific normative initiatives have been provided by the Institute for them: the establishment of a specific public sector working group, targeted seminars, conferences and trainings, and the provision of certificates and assessment tools specifically adapted to the public sector context, such as the Certified Government Auditing Professional® (CGAP®). In addition, some executive internal auditors working in the public sector are active members of the IIA BEL board. Normative IA awareness is more difficult to capture through quantitative studies than coercive pressures because it relates mostly to individual experience, contacts and implicit or indirect influence. We suggest then to operationalize the normative pressure through direct facts such as IA recommendations or support put forward by top management, external control actors or other key important stakeholder. Or in cases where the IA is recommended by international standards implemented on a voluntary basis where internal auditing appears also.

To avoid tautology or multi-collinearity risk in quantitative research, strong internal control environment or other normative elements dealing directly with IA professional networking such as the IIABEL membership or participation to IA education programs are avoided in this dimension. For instance, we suppose that the staff of an organization is more likely to be involved in such IA professional networking when the organization has already adopted an IA function. We expect also that the internal control environment, including risk management, is likely to be strongly and normatively influenced by IA service, because both elements are interrelated on the basis of the IA role definition.

Lastly, mimetic pressure results from imitation as the standard response to uncertainty. Generally, organizations tend to imitate other organizations they perceive to be more successful in their field (DiMaggio and Powell, 1983; Galaskiewicz and Wasserman, 1989; Haveman, 1993). Organizations may copy standards and practices held sacred in their related sector and professional field. Mimicry is then another way to increase legitimacy, irrespective of immediate efficiency of outcomes.

In our context, examples of mimetism can be found directly in IA legal regulation in the public sector where IA standards, COSO (Committee of Sponsoring Organizations of the Treadway Commission) and other international frameworks are often cited, such as the Belgian royal decrees on internal control and IA (2007). We think also that it is not hazardous that most Belgian government mandates on internal auditing are spread more or less at the same time following wider administrative reforms (earlier 2000). This could also explain the very young age of most IA departments. This includes the ones which are implemented on a voluntary basis, probably because their related organizations in the field or at the same governmental level have been required to implement this function.

Defining what variables are required to manifest mimetism is, however, not so obvious and very difficult to measure in quantitative research, as noted by some scholars. As Scott pointed out (1995:123), “if organizations tend to imitate other organizations like themselves, there remains the question as to how they make this judgment. By what criteria and via what processes do organizations determine the boundaries of their field and the identity of their reference set?” Organizational size is often used when examining this type of pressure, following DiMaggio and Powell's assumption that "the wider the population of personnel employed by, or customers served by, an organization, the stronger the pressure felt by the organization to provide the programs and services offered by other organizations" (1983:151).

Because the mimetic pressure is highly subjective, we decided not to include this dimension in our quantitative analytical framework. As stated earlier, we already know that most IA programs are implemented more or less at the same time across Belgian public entities, so the mimetism pressure is implicit or "overlapping" in our study. Moreover if we associate mimetism with size, this will be problematic, above all because most public entities within our population of cases are large (74%). Instead, we include the analysis of mimetism in the qualitative research part of our research.

(ii) An autonomy perspective of public entities

Autonomy is the degree of freedom a public entity can decide alone about matters considered as important (Verhoest et al., 2010). The autonomy of public organizations has increased following recent public reforms in most western countries, including Belgium. As Pollitt et al. (2004) stated: "…these initiatives can be grounded under diverse labels, from reforming pre-existing agencies... through creating new and only moderately autonomous agencies…to a fairly radical separating out of a class of organizations with extensive autonomy…" Thus we can find in one country a huge variation of autonomy among public entities. Examples include differences in legal status, which induce variation in managerial and financial autonomy, as well as differing performance contract agreements resulting in varied control systems and procedure requirements imposed by the state.

As an analytical concept, autonomy involves varied dimensions (Bouckaert and Peters, 2004; Verhoest et al. 2004a, 2006, 2010). Each dimension of autonomy is likely to provide a specific stimulus to organizational behaviour. According to Verhoest et al. (2010), there are various kinds of autonomy and the assumptions with regard to their related effect on public performance are based on NPM doctrine where the "ideal agency type" concept is discussed. This is based on a set of rational choices theories, such as public rights, principal-agency theory and public choice.

In this study, we use the multidimensional autonomy concept and related variables taken mainly from Verhoest et al. (2004a, 2010). This analytical autonomy perspective will also help us to provide a more comprehensive labelling system for public organizations since their respective legal status doesn't reflect their related autonomy scale in most cases (discussed below).

Within the dissertation framework, we test four forms of autonomy taken from the framework of Verhoest et al. (2004a:104-109), namely "managerial autonomy", "structural autonomy", "financial autonomy" and "interventional autonomy". These four forms of autonomy have been selected seeing that these fit well the scope of the dissertation theoretical framework. In other words, these refer directly to the entity capacity (or flexibility) in terms of internal resources, external control frameworks and resulting legitimacy needs. [91]

"Managerial autonomy", as defined by the authors, "implies shifting decision-making competencies from the centre concerning the choice and use of input and processes to the public administration itself". More particularly, it involves the degree of managerial involvement such as the financial autonomy (e.g. shifting budgets between line items over years, taking out loans), human resource management (e.g. selection of employees, salary, evaluation and promotion) and the management of other production factors like logistics. We assume here that managerial autonomy will facilitate the professionalization of IA activities in general. Indeed, as these authors explain on the basis of the NPM arguments, not only does professionalization have a better chance to occur if we "let the manager manage", but also, public entities with high managerial autonomy are able to prove that they are capable of managing professionally (even more professionally than the central administration departments) to maintain their legitimacy as decentralized agencies (Verhoest et al.2007, 2010).

The structural autonomy, as defined by the same authors, "refers to the extent to which the public entity is shielded from influence by the government through lines of hierarchy and accountability". A high level of structural autonomy implies the existence of a governing board. As Roness et al. (2007) noted, such governing boards which includes representatives from the organisation, stakeholders and political parties is likely to blur political influence, thus providing the public entity with more autonomy. We assume that public entities with a governance board will thus have more autonomy to manage themselves "normatively" (Roness et al. 2007, Egeberg, 1994, Christensens and Yesilkagit, 2006, Verhoest et al. 2010).

The financial autonomy refers "to the extent to which the public administration depends on government funding or own revenues for its financial resources"[92]. In this respect, DiMaggio

91 Two other types of autonomy are suggested by the authors, namely legal and policy autonomy. These two types of autonomy are the lesser relevant to test our theoretical framework while one should avoid too many explanatory variables for the quantitative test. Policy autonomy refers to the types of issues an agency can take decisions about, ranging from more stratecic issues to the more operational ones. Legal autonomy refers to the extent to which the legal status of the agency prevents the government from altering the allocation of decision-making competencies or makes such changes more difficult.

92 The definition includes also the following "and the extent to which it is responsible for its own losses". This part of the definition has not been taken into consideration in this analytical research framework to avoid "duplication of

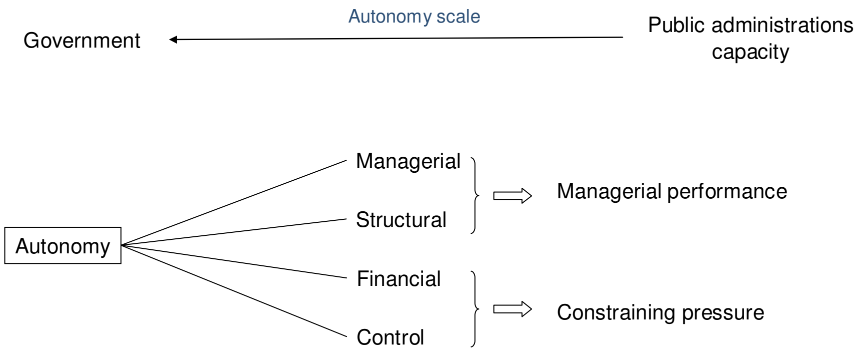
and Powell (1991:154) assume that "organizations that depend on the same sources of funding, personnel, and legitimacy will be more subject to the whims of resources suppliers than will organizations that can play one source of support off against another". Following this logic, we expect that a strong financial dependence will generate a positive response to government requirements. This relationship was also highlighted by political authors contributing to the concept of autonomy by noting that agencies with a large proportion of own incomes will have more autonomy than agencies whose income is largely dependent on government funding (Roness et al. 2007:14).

Lastly, the "interventional autonomy", discussed later in this dissertation under the term "control autonomy", refers "to the extent to which the public entity is free from ex-post reporting requirements, evaluation and audit provisions, to government with respect to fulfilling preset norms and to the extent to which the public administration is free from possible threats of government sanctions or interventions in case of deviation". According to the same authors, when external auditing and sanctions are weak or absent, public entities are more autonomous and able to pursue their own objectives. On the other hand, where public agencies are heavily controlled and under threat of sanctions (for instance if performance/legitimacy is linked to financial funds), public controls can keep public organizations focused on what the government has mandated them to do. It is true as pointed out by Verhoest et al. (2010:7-8) on basis of the NPM doctrine, that higher professionalization is expected if we "let managers manage". But, as also pointed by the same authors, constraints are necessary in order to "make managers manage well". The same authors explain that this principle is based more particularly on the principal/agent theory advocating that control is needed to minimize agency problems like opportunistic behaviours in case of high managerial decentralization. Consequently, with regard to our research context, we expect that low control autonomy (or a strong external control environment associated with sanctions) will strengthen both coercive and normative institutional pressures to adopt and professionalize an IA program.

To summarize briefly the main contributory effects of autonomy on institutional pressure to adopt and professionalize internal audit program, consider these differences. Structural and managerial autonomy are more likely to be driving normative performance capacity. Financial and control autonomy are more about constraints, and therefore low autonomy in these areas is likely to play a positive role. Figure 4 summarizes the corresponding autonomy effect based on NPM argument.

issues" because another autonomy dimension is dealing with this issue, namely the "intervetional autonomy" as defined later.

Figure 4 Summary of the autonomy attributes effects



We assume here that some types and gradations of autonomy will induce variation in organizational motivation and capacity to respond to IA requirements put forward by institutional pressures. Likewise tensions may occur between various dimensions of autonomy, sometimes creating paradoxical situations (Verhoest et al. 2004). For instance, organizations with high levels of managerial autonomy may have very limited managerial freedom because the governing board is fully composed of representatives from the oversight authorities. Likewise the managerial flexibility of a public organization may also be limited by strong financial dependencies from parent departments. Thus, an entire picture of the different dimensions of autonomy is important in order to create a more comprehensive view of the overall organizational capacity and motivation to adopt an IA program fostered by institutional pressures.

Autonomy attributes are mainly operationalised based on the methodological approach defined in the Verhoest et al. COBRA[93] survey mentioned earlier; however we have adapted it to fit our theoretical framework and quantitative method better. Concerning managerial autonomy, the focus is on policy autonomy in human resource management. That is, the extent to which the organization is able to make choices in terms human resource policy (e.g. salary, promotion, job profile…). As for structural autonomy, the focus will be on the presence or absence of a governing board within the organisation (Roness et al. 2007). Financial autonomy for the public entities consists of measuring the proportion of the state funds versus other main sources of income. Control autonomy focuses on the extent to

93 See COBRA website: http://www.publicmanagement-cobra.org/pub/index.htm

which the public entity is controlled and sanctioned by measuring the frequency and impact of public external control.

Hypotheses

To explain the outcome in terms of IA adoption and IA professionalization, the following hypotheses are constructed following the combination of DiMaggio and Powell's theoretical framework on institutional pressures (1983,1991) and Verhoest et al.'s theoretical framework on the autonomy concept (2004a, 2010) as seen in the previous section. The research hypotheses are specified as follows:

(1) Institutional pressures are necessary but not sufficient conditions to explain IA outcomes. These have to be combined with organizational enabling factors conditions, such as autonomy attributes.

(2) Autonomy attributes which drive managerial performance (managerial and structural autonomy) and constraining pressures (control and financial low autonomy) will reinforce the institutional pressures to adopt and professionalize IA.

(3) Some conditions are likely to contribute more than others, depending on their interaction with each other as:

(3.1) Various configurations of conditions lead to the same outcome, called in this dissertation the "multicausal hypothesis";

(3.2) In case of a coercive pressure, public entities with very low financial autonomy are more likely to adopt an IA program (based on neo-institutionalism, and dependency theory), called in this dissertation the "financial dependence hypothesis";

(3.3) In case of a normative pressure alone or combined with autonomy attributes on managerial performance driving conditions, public entities are likely to have higher IA maturity programs, especially if these are combined with a strong external control environment (based on NPM doctrine), called in this dissertation the "NPM hypothesis".

The hypotheses tend to demonstrate that institutional pressures and organizational autonomy attributes are likely to compete with one another for explanatory power, so that this research design is not a single causal model, but a multiple causal model. In other words, our hypotheses are configurationally oriented, so that a configurational analysis such as Qualitative Comparative Analysis (QCA) is more suitable here than standard statistical techniques based on correlational connections, as explained in the following section (Rihoux et al. 2011).

Quantitative methodology

Qualitative Comparative Analysis (QCA)

As argued earlier, a configurational method is more appropriate in the context of this research, more particularly the Qualitative Comparative Analysis (QCA) and related techniques. The QCA approach is mainly designed for the discovery of patterns in cases of causal complexity (Grofman and Schneider, 2009, Katz et al. 2005, Rihoux et al., 2011), which is not possible with traditional quantitative methods such as regression analysis (Katz et al. 2005:p539)[94]. This implies, as noted by Rihoux and Lobe (2009:223), that it is "…a holistic approach, in the sense that each individual case is considered as a complex entity, as a whole that needs to be comprehended and which should not be forgotten in the course of analysis. Thus QCA is in essence a case-sensitive approach; … this is a strength of QCA." It means also that all the cases are important, including atypical outliers (the ones with low empirical coverage because these are rare by nature, although these can fit the hypotheses well). Secondly, although QCA's main goal is to capture the complexity of the cases, it also aims to produce a level of generalization (Rihoux et al. 2012 forthcoming). Third, QCA best operates in intermediate-N situations, which is the case with our population of cases described below. Last, because QCA is very case-sensitive, it is important to justify all analytical steps in the test. Some justifications are reported directly in the main dissertation document, other are put into the relevant appendix.

QCA was introduced to the wider public by the American social scientist Charles Ragin in 1987 (Wagemann and Schneider, 2006). Since then, QCA has been extended and improved continuously, in particular in empirical social scientific research. The main logic behind QCA is the analysis of set-theoretical relationships between independent variables, what QCA calls "conditions", and, a clearly defined dependent variable, what QCA called "outcome". At the centre of the method is the identification of the necessary and sufficient conditions linked to the outcome (Wagemann and Schneider, 2006). These relationships are interpreted in terms of necessity and/or sufficiency. More precisely, a condition can be interpreted as sufficient if, when the condition is present, the outcome is also always present. Consequently, the sufficient condition is the subset of the outcome. By contrast, a condition

94 Nevertheless a binary logistic regression has been done to test what are in general the most significant variables in the equation. We conclude that QCA and regression cannot test the same hypotheses because the two approaches to understand causal complexity lead them to formulate different kinds of hypothesis (Katz et al., 2005: 541).

is necessary if, when the outcome is present, the condition is also always present. Consequently, the necessary condition is a superset of the outcome (Ragin 2000:95).

The method starts by examining all possible combinations of causal conditions and then simplified the model in a top-down manner (Ragin 2000:72). First, we assign membership scores to cases in terms of outcome and conditions, based on literature and empirical justification. Second, we pass the test of necessity, that is to see if all cases that have the causal condition also present the outcome; in that case then this condition passes the test of necessity. Third, we pass the test of sufficiency, by comparing the membership score of the outcome with the score of all the possible logical combinations of conditions that are empirically observed in the population of cases. If there is a combination leading to an outcome that happens in a majority of cases, then this combination passes the test of sufficiency. Fourth, we eliminate combinations that pass the test of sufficiency but are logically redundant and obtain a minimization of the statement of causal sufficiency (ibidem).

Two main analyses are conducted for the empirical test. The first analysis tests the six conditions to explain IA adoption with the overall population of cases including IA adopters and IA non-adopters, with a total of 66 cases. The second analysis will test the same six conditions to explain "IA professionalization" with the sub-sample "IA adopters" with a total of 29 cases. Then a triangular approach will be conducted with a qualitative study to confirm and interpret further the main findings and contradictory cases. The methodology, the selection of cases, and the main findings for the qualitative phase are described in the following chapter.

Population of cases

The hypotheses are tested in the Belgian public context through a quantitative survey conducted jointly with IIABEL and Gent Universiteit during the spring of 2010. The population consists of Belgian public entities occupying various points on an autonomy scale including both IA adopters and IA non-adopters at the federal, regional and local level in Belgium[96]. In terms of the data collection process, we collected two sets of data for each public entity. This first questionnaire was divided into 4 parts:

(1) Features of the control environment of the organization;

(2) The IA program profile of the organization;

(3) IA governance; and

(4) IA professional practices.

95 For a full exposition of the method, see Ragin 2000 or Rihoux and Ragin, 2009.
96 Belgium has an additional government level, called the French and Flemish Community. To simplify the Belgian political picture, these have been regrouped into the Regional government levels in this paper.

The second set of data dealt more with general characteristics of the entity and financial data. The first questionnaire was sent in June 2010 to those in charge of internal control or IA activities (if the latter were present). The second questionnaire was sent directly after to the contact person recommended by the first respondent. We followed up the completed questionnaires with emails, phone calls and archiving data to improve the quality of responses and participation.

We used three main sources to construct the survey population database:

(1) The 2009 membership database of IIABEL;

(2) The global listing of Belgian public entities provided by the Comptes Nationaux/Regionaux et Conjoncture of the Belgian National Bank[97] on the basis of ESA95 codification ("S.13 sector general government sector"[98]); and

(3) The list of local public entities which are under the supervision of municipalities with more than 30.000 inhabitants.

Autonomous pensions funds, governmental foundations, corporations, trusts and charities, advisory committees and very specific institutions such as police, churches, schools (except high schools or universities) have been excluded from our population of cases because their missions are too specific compared to public entities performing more usual tasks while their very large number will give to much emphasis in our population of cases compared to the ordinary public entities which are far less numerous.

The population of cases is made up of departments and related dependent services, and decentralized agencies at the federal and regional government levels. Most of these decentralized agencies are regulated by the law "loi du 16 mars 1954 relative aux contrôle de certains organismes d'intérêt public". This law classifies the agencies into four main categories in order to rationalize their control and oversight (Verhoest et al.2010 Batselé et al.2010 Renders, 2010 Damar and Delaunois, 1988). The first type (Category A) referred to public agencies directly attached to the hierarchy of a minister, but having its own legal identity such as some agencies at federal level operating in the area of public health, public housing and public pension funds. Agencies of Category B, C and D have their own governing board, normally dispose of more managerial and financial autonomy and are

97 See "Banque nationale de Belgique, Les unités du secteur public, mise à jour 30.09.2009".
98 According to ESA95 (§2.68-9), public entities which are included in its related general government sector list (S13) are "all institutional units which are other non-market producers whose output is intended for individual and collective consumption, and mainly financed by compulsory payments made by units belonging to other sectors, and/or all institutional units principally engaged in the redistribution of national income and wealth … These includes a) general government entities which administer and finance a group of activities, principally providing non-market goods and services, intended for the benefit of the community; b) non-profit institutions recognised as independent legal entities which are other non-market producers and which are controlled and mainly financed by general government; c) autonomous pension funds."

under the oversight authority of a minister and a related department. Category D is now mostly replaced by the public institutions for social security (PISS). Other types of decentralized agencies exist also at the federal and regional level and are regulated by adhoc legislation, such as other public institutions, nonprofit associations and public or hybrid companies. State companies are regulated by the law referred as "loi du 21 mars 1991 portant réforme de certaines entreprises publiques économiques 1991" including public companies such as Belgacom, the Société Nationale des Chemins de fer Belges (SNCB) and Bpost. These companies have mix private/public legislation and have each a governing board representing both public and private interests. These are normally the most autonomous in terms of managerial capacity. At the local level, we find mostly municipalities and related public social welfare centres (CPAS) and local decentralised agencies such as cooperatives (public or a mixture) working under the oversight authority of the related municipality, especially in the area of public amenities and utilities.

In total, 592 organizations were contacted by email with a response rate of 21% (126 participants). In terms of the diversity of public entities, the survey achieved a satisfactory representativeness, except at the Flemish local level, where none of the local agencies wished to participate in the survey[99]. We suspect also that the IA adoption rate is overrepresented because respondents which were the most motivated to participate were IIABEL members or respondents which have an interest in the subject or because they have an internal audit program. Note that this overestimation does not affect the relevance of the scientific validity of the empirical test for three reasons. First the dissertation quantitative method mainly focusses on data with regard to IA adoption and IA professionalization, not in case of absence or unsustainable IA programs. Second, the scientific validity of the quantitative test, above all, relies on a strong variation amongst the explanatory variables and results, which is the case with our population of cases (57% of the cases have adopted an IA program). Third, the qualitative study described in the next chapter examines a number of entities in the population of cases which have no IA programs, so that the qualitative perspective complements the quantitative test in case of IA absence

For the dissertation research purposes, 66 questionnaires have been retained to ensure higher theoretical consistency and quality of data, on the basis of the following justifications. First, public entities performing under the oversight authority of the Flemish regional authority have been excluded from the empirical test because IA programs are carried out by an agency for all departments and agencies at that government level. In contrast most public entities from other government levels manage their IA programs at the entity level, and therefore are qualified for inclusion in the survey. Second, the local sample of Flemish public

99 Full detail of the population of cases and representativeness rate are shown in Appendices.

entities does not demonstrate enough variation in terms of autonomy, as mentioned earlier. Thus our final population of cases includes the following government authorities: the federal level, Brussels and Wallonia at the regional and local levels, and the French Community[100]. This process produced 72 completed questionnaires, of which five questionnaires have been rejected because they had a low response rate with regard the independent or dependent variables[101]. After the first execution of the model with the two control variables, as explained later, we decided to exclude one other case to increase theoretical consistency[102]. In total, 66 cases have been included in the first analysis (IA Adoption) and 29 cases in the second analysis (IA professionalization)[103].

The following are key features of the public entities in our population of cases in terms of legal organization type and population representativeness, autonomy profiles, public government level, policy area in which public entities operate, numbers of employees and total amount of their 2010 annual budget. Most of the indicators and related metrics used in the survey have been operationalized following the above-mentioned COBRA methodology, since these indicators are tailored to public sector specifications (Verhoest et al.2010).

Table 1 reveals that departments, public institutions for social security, state companies and public institutions (comprising the "B" class) are over-represented. Local public welfare centers, self-accounting departmental service and non-classified public institutions are under-represented. Although the population of cases is not perfectly representative, it is neither overshadowed or biased by a single organisation type, nor does the sample show huge gaps, except for the absence of public institutions (class "C"), but in reality these are very rare. Above all, the sample shows a high diversity in the autonomy profiles among public entities, which is a crucial element to ensure the scientific validity of the empirical test.

100 In this study, French Community public entities are regrouped into the regional level to simplify the Belgian political picture.
101 One ipss, one asbl, one oipB and two cooperatives.
102 One OIP B.
103 In the sub-sample, 9 cases have been excluded because their IA programs were 2 years of existence or less as explained later.

Table 1 Descriptive data on population representativeness

	Population (N)	Population (%)	Cases Sample (N)	Cases Sample (%)	Representativeness
Ministerial departments	22	6	11	17	+
Municipalities	36	10	6	9	=
Self-accounting departmental service	33	9	2	3	-
Public institutions “A"	24	7	4	6	=
Public institutions “B"	33	9	9	14	+
Public institutions “C"	5	1	0	0	=
Public social security institutions (old “D”)	15	4	8	12	+
Not classified (public institutions, LLCs, not profit, …l)	48	14	5	8	-
State companies	7	2	5	8	+
Local cooperatives	85	24	12	18	-
Local public social welfare centres ("CPAS")	34	10	2	3	-
High schools	9	3	2	3	=
Totals	351	100%	66	100%	

Because the legal status of the public entities does not necessary correspond to the overall autonomy profile of the related public institution in most cases as explained in the previous section, a new distribution of cases has been suggested below on the basis of the survey responses over their overall capacity in terms of managerial, financial and structural autonomy. This new perspective allows us to confirm whether or not the population of cases shows enough variation in terms of autonomy for the empirical test. Besides, seeing that there is a substantial variation in legal status among Belgian public entities, this classification in Table 2 will mostly be used during the description of empirical results instead.

Table 2 Dispersion of cases labelled by global autonomy score, by decreasing order

Types of cases	N	%
Autonomous External Agencies (AEA)	8	12
Semi-Autonomous External Agencies (SAEA)	15	23
Semi-Autonomous Internal Agencies (SAIA)	1	1
Municipalities (MUM)	6	9
Non-Autonomous External Agencies (NAEA)	17	26
Non-Autonomous Internal Agencies (NAIA)	8	12
Departments (DEP)	11	17
Totals	66	100%

Public entities in the survey that received a high score in terms of managerial and financial autonomy are called autonomous agencies. Semi-autonomous agencies present ambiguous autonomy situations: either they have large managerial freedom with no financial autonomy or low managerial freedom with high financial autonomy. Non-autonomous agencies have both low managerial and low financial autonomy. When decentralized agencies have a board, these are considered here as external agencies and vice versa. Note also that the survey displays similar scores for departments as non-autonomous agencies: low managerial capacity combined with low financial autonomy, while municipalities showed different scales of autonomy amongst themselves[104].

This table shows that all autonomy profiles are sufficiently presented in our population of cases, for the most part. There are exceptions. On the one hand, some autonomous internal agencies are not present in this sample. On the other, there are some semi-autonomous internal agencies which are not very numerous. However these under-representations are slightly compensated for by municipalities having this combination of autonomy attributes. Furthermore, it is important to note that non-autonomous public agencies including departments (and some municipalities) represent the main category in our sample (at least 55%). This finding is not surprising; after all, low autonomous entities are the rule rather than the exception, at least in the Belgian public sector. This holds true in spite of recent managerial reforms involving a decentralization process of a large amount of public entities.

In terms of the level of government, public entities representing the federal level are the main group in our sample (42%), followed by local entities (29%) and regional entities (29%) alike[105]. Most public entities in our sample are operating in the welfare area, either in the social, employment or healthcare policy areas (32%) or in the provision of public utilities and amenities (30%). The remainder are minority groups working in more specific policy areas

104 The survey showed that municipalities established in Bruxelles Region seem to have more managerial autonomy than in Walloon Region, except at provincial level. Further research is needed to confirm these findings.
105 Public entities representing Brussels at regional and local level are under-represented in the sample.

such as Finance, Economics, Culture or Education. Concerning the age of the organisations, more than a third of the public entities (38%) are more than 50 years old, while 33% are between 16 and 50 years old and the remainder (28%) have been established in 1995 or later. A minority of organizations (7%) have been in existence for five years or less. In terms of size (FTE)[106]; the number of employees ranges from 6 to 29.400 employees with an average of 2.650 employees (and a median of 465). Almost three-quarters of the public entities (74%) are large in size, while 18% are medium-sized and 8% are small organizations. Budget size[107] ranges from € 0,6 million to € 22,000 million, with the average being € 1,326 million (and the median € 81,5 million). Two third of the cases (61%) have a large budget, while 27% of public entities have a medium budget and 12% have a small budget.

Operationalization of the outcomes and the conditions

Some outcomes and conditions are conceptualised as simple presence/absence dichotomies following csQCA (where 'cs' stands for "crisp set") related techniques. A score of 1 indicates then that a given condition or outcome is present and the score of 0 indicates that the given condition or outcome is absent.

Other outcomes and conditions require the transformation of the raw data into fuzzy-set membership scores following fsQCA (where "fs" stands for "fuzzy set") techniques because some cases display more or less of a certain property of the condition or the outcome. Fuzzy-set measurement is considered as a qualitative statement to which cases may vary in their degree of membership. The basic idea behind fuzzy sets is to allow the scaling of membership scores for values between the extremes of "0" and "1"'and thus allow partial membership (Rihoux and Ragin, 2009:87-9). A fuzzy membership score of "1" indicates full membership in a set. Scores less than "0.5" but greater than "0" indicate that cases are more "out" than "in" a set, but still weak members of the set. Finally, a score of "0" indicates full exclusion from the set. The "0.5" score indicates the point of maximum ambiguity in the assessment of whether a case is more "in" or "out" of a set.

Below is the justification for the calibration of membership of the outcomes and the conditions such as the qualitative anchors and coding rules, based on theoretical knowledge and empirical evidence (Ragin 2000:150-170, Grofman and Scheinder, 2009).

Table 3 shows the entire set of variables in terms of outcomes and conditions and related scope and calibration justification.

106 According to COBRA's methodology, a small agency is defined as one with fewer than 50 FTEs, a medium agency as one with between 50 and 199 FTEs and a large agency as one with 200 FTEs or more.
107 According to COBRA's methodology, public entities with a small budget is defined as one with less than €5 million, a medium budget as one between €5 to €40 million and a large budget is one with more than €40 million.

Table 3 Operationalization of the outcomes and conditions

IA Adoption (A)	The questionnaire asked the respondents to indicate if an explicit IA program is implemented in their organisation whatever the form: internal service, outsourced or co-sourced. On the basis of the answer, a dummy variable was constructed: 1 = presence of an IA program; 0 = absence of the IA program.
IA Professionalization (PRO)	In the case of IA adoption, respondents were asked to continue with the questions related to their own IA program in line with the IA-Capability model items selected for the study[108]. Items were assessed by the respondents on different measurement scales depending on the question: either on the basis of a five-point scale or on a dummy variable (absence/presence) or a percentage or on other types of ratios. Each maturity level has its own corresponding list of items. Although the IA-CM requires IA departments to score 100% of all the items of the corresponding maturity level to lead to such a maturity level, we adopted a more relaxed rate of 80%. After all, no respondent achieved a 100% rate of all items mentioned in the listing of every maturity score. Secondly we think that this score is already a good representation of the implementation/institutionalization process of an IA program. As mentioned previously, the objective of this research is not to provide an accurate score of the maturity level, but a broad idea of the institutionalization process and sustainability of the IA program in the organisation itself. However, respondents who score 80% or higher in the upper maturity level without achieving the lower maturity level(s) are not considered to have achieved the higher maturity level following the building block approach stressed by the IA-Capability model. Furthermore, as only 3 out of 29 entities have achieved the “integrated” level or higher levels, these have been regrouped into one high maturity scale category called “Professional”. As a result, the following maturity scales have been retained and scored according to a four-value fuzzy set scale (Rihoux and Ragin, 2009:91): 0.33 = Initial; 0.67 = Infrastructure; 1 = Professional. Note that a score of 0 is not relevant here because we include only the IA adopters, who possess a certain degree of membership in the maturity scale. Note also that according to the IA Capability model (2009), cases achieving only the initial level are not considered as sustainable in the long run. To adapt these maturity scales to our dissertation context, the initial stage is

108 Full construction and justification of the items are put in the appendices of the thesis.

	called “unsustainable” ; the infrastructure stage is called “sustainable”; the higher professional stages are called “professional”.
Coercive pressure (C)	It is a dummy variable based on the presence or absence of an explicit requirement to implement an IA program on the basis of at least one of the following situations indicated by the respondents in the questionnaire: (1) if IA was compulsory or not within their entity; and/or (2) whether their entity is obliged to implement the following international norms as ISO, EMAS or INTOSAI/COSO, which also require IA. 1= IA is an explicit requirement; 0= no explicit IA requirement
Normative pressure (N)	It is a dummy variable based on the presence or absence of a normative pressure on the basis of at least one of the following situations indicated by the respondents in the questionnaire: (1) if the IA program is highly recommended by top-management or other key stakeholders such as external auditors or audit committee; (2) or whether their entity has implemented the following international norms as ISO, EMAS or INTOSAI on a voluntary basis, which also require IA. 1= IA recommended internally or externally, but is not compulsory; 0 = no IA recommendations
Managerial autonomy (M)	The degree of managerial flexibility in terms of human resource policy is measured by the average score on the following six items assessed by the respondent using a similar five point scale with the following question, “To what extent can your organisation decide alone (without an intermediary) on the following human resource policy aspects”: a. job descriptions b. recruitment process c. selection of staff d. salary e. promotion f. staff evaluation system To enable fuzzy set calibration, the extreme qualitative anchors have been selected according to five scale assessment as put in the questionnaire: 1 = High managerial flexibility (5); 0 = no managerial flexibility (1). The medium anchor “0.5” has been estimated according to the global empirical average score just a little higher than the median = (3,2).
Financial dependence (F)	The raw data is computed as the proportion (percentage) of the organization’s main source of income/other than state resource to the total organization source of income. Fuzzy qualitative anchors have been based on the following benchmarks from

	Roness et al. (2007) related to financial autonomy: 1 = organizations with 70% of public funds or more; 0.5= mixed financial autonomy with 40 up to 69% public funds; 0= organizations with public funds of 30% or less.
Strong external control (E)	The variable is an average score based on two dichotomized indicators. First, respondents where asked how many times their organizations were audited by external agents such as auditors sent by the supervising authority, or by the Court of Audit, accountants, financial inspectors, etc. When the organizations are audited more than twice annually, the score is 1. Otherwise when the organization is audited twice per year or lesser, the score is 0. Second, respondents were asked whether there is an impact on their organisation in cases of bad/good performance detected by external audits. Responses from high impact to medium impact were computed as score 1 in the study. No impact is score 0. Fuzzy set qualitative anchors: 1 = Both medium to high sanctions and external control frequency; 0. 5 = medium to high sanctions but no control OR medium to high external control but no sanction; O = low to no sanction or control.
Structural autonomy (S)	It is a dummy variable. Score 1 indicates the presence of an independent executive board, so that the organization is considered to be a structurally separate entity from government. Score 0 indicated the absence of such a board, so that the organization is considered as linked to the government hierarchy structurally (Roness et al. 2007).

Control variables

Control variables are not taken into account in the QCA analysis, but these have been used for the construction of the population of the cases to avoid biased results in explaining the IA outcomes; meanwhile they increase the consistency of the data.

"Size" has been used as a control variable in the population of cases in case of IA adoption where very small size organisations (=<10 employees) are likely to be associated with low IA adoption[109].

"IA program age" has been applied as a control variable in the case of IA professionalization where IA programs of 2 years of existence or less have been excluded

[109] This has been done after the truth table test with the case ID 43 (4 employees) to increase the consistency rate as explained later or in appendix. We left however the other cases which have no effect on the consistency rate in case of IA adoption (see case ID 19 and case ID 48).

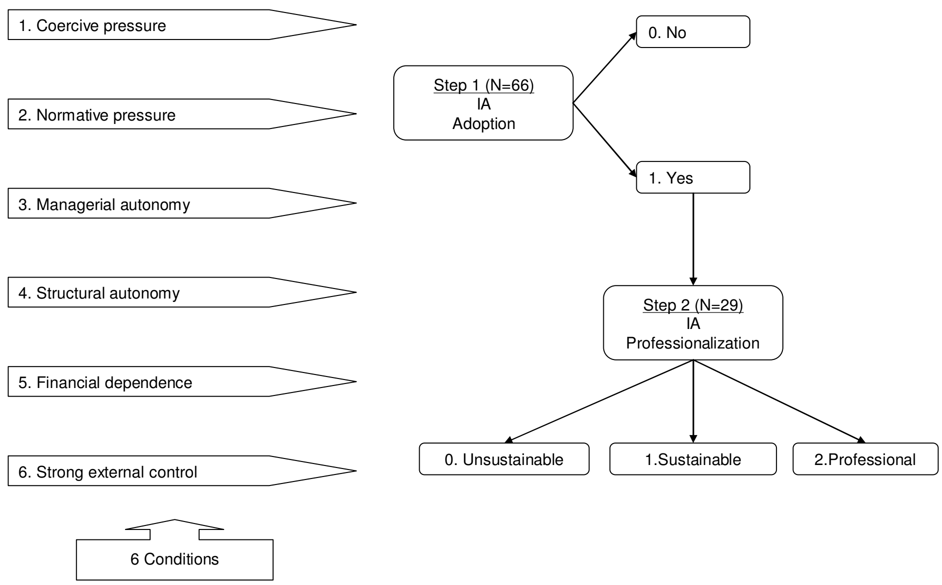
from the population of IA adopters to avoid biased results when testing the conditions to explain IA professionalization[110].

Quality control of the data

Furthermore, a recall process was performed a few months later, with some respondents to increase the quality of the dissertation data where odd scores or nonresponses with regard to core indicators have been detected, in particular with the managerial and the financial conditions. As for the IA mandates (e.g. the coercive pressure), some data errors occurred, but they were easy to readjust since most of these mandates were familiar to us. When discrepancies remained, we double-checked our data with the respondents through a recall process.

Figure 5 shows a summary of the two-step approach including the 6 conditions, the IA outcomes, and the number of cases.

Figure 5 Summary of the quantitative test design



110 Note that all IA programs of two years of existence or less have not yet achieved a sustainable IA program in our population of cases.

2.3. Data analysis: main findings

The purpose of this analysis is to detect the most significant configurations performing the standard QCA fuzzy set analytical approach in two main major steps: first, analysing the outcome in terms of "IA adoption"; second, analysing the outcome "IA professionalization". For each analysis, we perform the following step: first, we describe the data matrix; second, we analyse necessary conditions, third, we analyse for sufficient conditions, and, fourth, we do the analysis of minimal conditions[111]. The main findings and related tables or figures are reported below. The more QCA technical matters, descriptions and justifications are found in appendices, including the whole test of necessary conditions, the whole test of sufficient and minimal conditions in case of IA adoption, and the whole test of sufficient and minimal conditions in the case of IA maturity.

Outcome as "IA adoption".

Description of the data matrix table

Table 4 presents the data in the usual QCA fuzzy-set spread sheet, with conditions and the outcome as columns and cases as rows. This table summarizes the membership scores for each case in a crisp or fuzzy-set mode[112]. Cases are grouped into the autonomy categories according to the classification outlined earlier. As the names of the organizations have been kept confidential, the row number will serve as the case id number for all the cases in the quantitative and qualitative studies.

Table 4 Summary data matrix table of all fuzzy set scores in terms of IA adoption.

# Row/ ID case	Case Labels	CONDITIONS						OUTCOME
		Coercive pressure (C)	Normative pressure (N)	Managerial autonomy (M)	Financial dependency (F)	Structural autonomy (S)	Strong external control (E)	IA adoption (A)
1	AEA	0	1	1.0	0.0	1	1.0	1
2	AEA	0	1	0.7	0.0	1	1.0	1
3	AEA	0	1	1.0	0.3	1	1.0	0
4	AEA	0	1	1.0	0.0	1	0.9	1
5	AEA	1	1	1.0	0.0	1	0.9	1
6	AEA	1	1	1.0	0.1	1	1.0	0
7	AEA	1	1	1.0	0.0	1	0.3	1
8	AEA	1	1	0.6	0.0	1	0.3	0
9	SAEA	1	1	0.8	1.0	1	0.6	1
10	SAEA	1	1	1.0	0.7	1	0.6	1
11	SAEA	1	1	0.1	0.3	1	0.3	1

111 To follow the QCA best practice, the analysis of configurations in case of absence of the outcome has been done and put into the appendix, with no major findings.

112 The raw data are provided in appendix.

# Row/ ID case	Case Labels	CONDITIONS						OUTCOME
		Coercive pressure (C)	Normative pressure (N)	Managerial autonomy (M)	Financial dependency (F)	Structural autonomy (S)	Strong external control (E)	IA adoption (A)
12	SAEA	1	1	0.9	1.0	1	0.1	1
13	SAEA	1	1	0.3	0.3	1	0.1	1
14	SAEA	1	0	0.8	0.8	1	0.9	0
15	SAEA	0	0	0.2	0.0	1	0.9	0
16	SAEA	1	0	0.3	0.1	1	0.6	0
17	SAEA	0	1	0.5	0.1	1	0.1	1
18	SAEA	0	1	1.0	1.0	1	1.0	1
19	SAEA	0	0	0.4	0.0	1	0.6	0
20	SAEA	0	1	0.9	1.0	1	0.3	0
21	SAEA	0	0	0.9	1.0	1	0.3	0
22	SAEA	0	1	0.2	0.0	1	0.1	0
23	SAEA	1	1	0.3	0.0	1	0.1	0
24	SAIA	0	1	0.9	1.0	0	0.6	0
25	MUN	0	1	0.5	0.2	0	1.0	1
26	MUN	0	1	0.8	0.2	0	0.6	1
27	MUN	0	0	0.3	0.1	0	0.1	1
28	MUN	1	0	0.3	0.1	0	1.0	0
29	MUN	0	0	0.3	0.1	0	0.6	0
30	MUN	0	1	0.3	1.0	0	0.1	0
31	NAEA	0	1	0.3	1.0	1	1.0	1
32	NAEA	0	1	0.3	1.0	1	1.0	1
33	NAEA	0	1	0.4	1.0	1	0.6	1
34	NAEA	1	0	0.4	0.7	1	0.6	1
35	NAEA	1	0	0.5	1.0	1	0.3	1
36	NAEA	0	1	0.5	1.0	1	0.3	1
37	NAEA	1	0	0.2	1.0	1	0.3	1
38	NAEA	1	1	0.1	1.0	1	0.3	1
39	NAEA	0	1	0.4	0.9	1	0.3	1
40	NAEA	1	1	0.2	1.0	1	0.1	1
41	NAEA	1	1	0.4	1.0	1	0.1	1
42	NAEA	1	0	0.2	1.0	1	0.1	1
43	NAEA	0	1	0.1	1.0	1	0.6	0
44	NAEA	0	0	0.4	0.0	1	0.6	0
45	NAEA	0	1	0.5	1.0	1	0.3	0
46	NAEA	0	1	0.5	0.8	1	0.3	0
47	NAEA	0	0	0.2	0.9	1	0.1	0
48	NAEA	0	0	0.5	0.9	1	0.1	0
49	NAIA	1	0	0.1	1.0	0	0.6	1
50	NAIA	1	0	0.4	1.0	0	0.1	1
51	NAIA	1	1	0.4	0.9	0	0.1	1
52	NAIA	0	0	0.2	1.0	0	0.1	0
53	NAIA	1	1	0.4	1.0	0	0.6	0
54	NAIA	1	1	0.4	0.8	0	0.6	0
55	NAIA	1	1	0.5	1.0	0	0.1	0
56	NAIA	0	1	0.4	1.0	0	0.1	0
57	DEP	1	1	0.2	1.0	0	1.0	1
58	DEP	1	0	0.2	1.0	0	0.6	1

# Row/ ID case	Case Labels	CONDITIONS Coercive pressure (C)	Normative pressure (N)	Managerial autonomy (M)	Financial dependency (F)	Structural autonomy (S)	Strong external control (E)	OUTCOME IA adoption (A)
59	DEP	1	0	0.1	1.0	0	0.6	1
60	DEP	1	1	0.2	1.0	0	0.6	1
61	DEP	1	1	0.1	1.0	0	0.6	1
62	DEP	0	1	0.5	1.0	0	0.6	1
63	DEP	1	0	0.1	1.0	0	0.3	1
64	DEP	1	0	0.2	1.0	0	0.1	1
65	DEP	1	1	0.1	1.0	0	1.0	0
66	DEP	1	0	0.1	1.0	0	0.6	0
67	DEP	1	1	0.1	1.0	0	0.3	0
Totals		**36**	**44**	**17**	**45**	**41**	**35**	**38**

AEA=Autonomous External Agency; SAEA = Semi-Autonomous External Agency; SAIA = Semi-Autonomous Internal Agency; NEAE: Non-Autonomous External Agency; NAIE = Non-Autonomous Internal Agency; DEP = Department; MUM= Municipality

This set of data is not yet filtered, which is why there are 67 cases. In terms of IA outcome, 38 cases (57%) have adopted an IA program, by frequency in decreasing order, 12 NAEA (32%), 8 DEP (21%), 7 SAEA (18%), 5 AEA (13%), 3 MUN (8%) and 3 NAIA (8%).

With regard to institutional pressures, the table reveals that IA is compulsory in 36 cases (54%). More particularly, 10 of 11 departments have a legal mandate related to IA, while most municipalities are not legally required to implement IA program. As for the agencies, IA requirements are more ambiguous: some have legal mandates, others do not. These empirical data confirm the IA regulation analysis framework discussed in Chapter one. For instance, the French Community public authorities require certain public agencies under their control to implement IA programs since 2003. At the Walloon region, IA programs are not compulsory by the regional government. In terms of normative pressure, 44 cases (65%) have received recommendations to implement IA program, with a proportion of 100% for the AEA category group. Twenty cases (29%) have both normative and coercive pressures with regard to the IA program.

If we compare the frequency of each condition, managerial autonomy (M) is, not surprisingly, the least frequent condition presented by far (17 cases, 25%). The occurrence of the other conditions are found in more than half of the cases, by decreasing frequency order: “Financial dependence” (67%); “Normative pressure” (65%); “Structural autonomy” (61%); “Strong external control” (52%); and “Coercive pressure”(54%).

The AEA entities are, proportionally, the ones most controlled by external auditors. This empirical trend confirms what some political scientists have already pointed out in studies: “it appears that increased autonomy for public organizations from their sponsoring ministries may mean that they become more subject to control from central budgetary and policy control agencies" (Bouckaert and Peters, 2004:23). For instance, these entities have performance contracts established between them and the state where incentive/sanction systems with regard to performance achievements in line with specific targets that are explicitly mentioned in these documents. Furthermore, these entities by their decentralization tasks are closer to the regime of the market. This involves additional types of external control requirements and threats resulting from market competition and industry specifications. This will be explained further in the empirical test

Necessary conditions for the outcome of "IA adoption"

Table 5 shows the results of the analysis of the necessary conditions for the outcome "IA adoption". The test reveals that none of the six conditions alone is necessary to explain IA adoption.

Table 5 Analysis of the necessary conditions for the outcome "IA adoption", by decreasing consistency rate

Conditions tested		Consistency	Coverage
Normative pressure	(N)	0.71	0.63
Financial dependence	(F)	0.71	0.61
Coercive pressure	(C)	0.63	0.67
Structural autonomy	(S)	0.63	0.60
Strong external control	(E)	0.46	0.59
Managerial autonomy	(M)	0.44	0.57
Coercive OR normative pressure	(C+N)	0.97	0.60

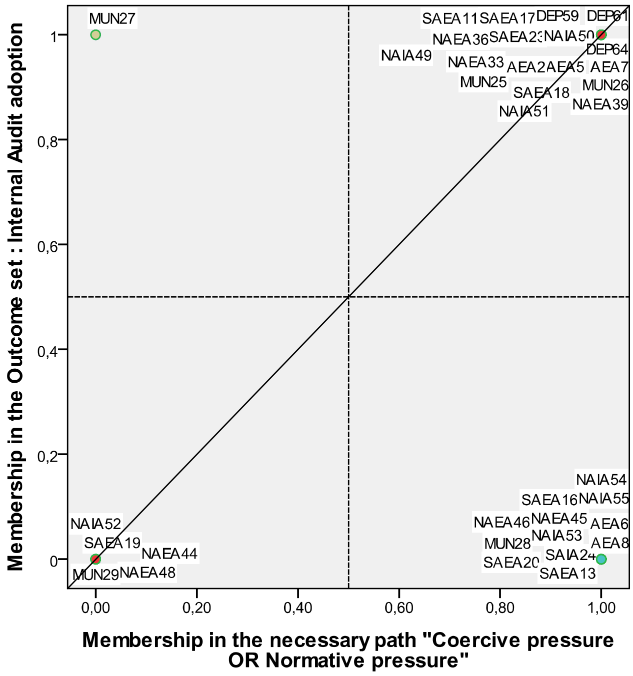
Note: The gray box indicates the result is judged as a consistently necessary condition for the outcome.

Furthermore, if we test both institutional pressures together as a necessary causal combination to test hypothesis (1) "Institutional pressures are necessary but not sufficient to explain IA outcomes", the test of necessity is positive. That means that IA adoption is always present when there is a coercive or a normative pressure or both.

Figure 6 shows the relationship graphically, including all cases with its related category and identification number found in the data matrix exposed earlier.

All the graphical representations concerning fsQCA solutions in this document are an enhanced version of the x-plot that also includes a vertical line and a horizontal line at the 0.5 set membership score for the condition and the outcome, respectively. For a condition to be necessary, all cases should be located around or below the diagonal (Ragin, 2000).

Figure 6 Necessary conditions for the outcome of IA adoption



In Figure 6 all cases are clearly on the diagonal except one case (MUN 27) which is clearly above the line, in the top left corner. It means that this case contradicts the necessary path by demonstrating that an internal audit activity has been implemented even when institutional pressures were absent.

This "outsider" case, in this case a municipality (ID 27 in the data matrix), has been further investigated in the qualitative phase[113] and reveals that the IA adoption was implemented on a voluntary basis by the top manager of the municipally. The IA rationale was to test the internal audit concept within its own organizational settings following a general training session on internal auditing. Thus this case clearly lands with all the other cases at the top right corner. Consequently this empirical test strongly supports the neo-institutional hypothesis that an internal audit activity always occurs when there is at least coercive or normative pressure.

Sufficient conditions for the outcome of "IA adoption"

For the following test, we decided to eliminate the case in row 43 because of its small size (only 4 employees) which is likely to be the main reason explaining the absence of IA program, while 3 cases of regular size displaying the same causal combination have adopted IA program as it has been clearly highlighted in the Truth Table put in appendix.

To summarize the Truth Table, it shows that the empirical cases cover 31 combinations out of 64 (48%). The remaining 33 are logical remainders that are not covered by the

113 See "issue 1" in the qualitative research program in the next chapter.

sample. The treatment of these logical remainders will influence the results obtained, as these will be used as potential counterfactual cases for further logical simplification of the Truth Table (Grofman and Scheinder, 2009).

The main purpose of the sufficient analysis is to reduce the complexity of the most consistent rows in the Truth Table displaying the presence of the outcome into "solutions" on the basis of the Quine McClusky Truth Table algorithm with the FSQCA 2.0 software application.

The results of the analysis of the sufficient conditions for the outcome of "IA adoption" are displayed in Table 6.

Table 6 Analysis of sufficient conditions for the outcome "IA adoption", by decreasing consistency rate

Solutions	C*N*M*F*S*E "Path 1"	+ C*m*F*S*e "Path 2"	+ C*n*m*F*s "Path 3"	+ c*N*m*F*S*E "Path 4"	+ c*N*M*f*E "Path 5"	→IA adoption
Consistency	0.97	0.94	0.83	0.81	0.80	
Raw coverage	0.04	0.15	0.13	0.07	0.10	
Unique coverage	0.02	0.13	0.13	0.06	0.10	
Complex Solution consistency: 0. 87			Complex solution coverage: 0.47			

Note: Where "*" means "AND"; "+" means "OR"; The consistency threshold has been set at 0.74 and the frequency cutoff at 2.00; The gray boxes indicate that the results are judged to be consistently sufficient conditions for the outcome.

The table reveals that the complex solution here explains 47% of the IA adopters with a high consistency rate of 0.87. It is also called the complex or descriptive formula because it does not go much beyond the observed empirical cases (Ragin, 2009:57).

Second, the table shows that five combinations of conditions lead to the adoption of an internal audit activity, by decreasing order of consistency, so that the "multicausal hypothesis" is confirmed[114]. The most consistent are the ones which are implemented on a compulsory basis, respectively Path 1, Path 2 and Path 3, while both Path 4 and Path 5 represent cases where IA is implemented on a voluntary basis.

Third, institutional conditions are present in all configurations so that this finding is in line with the necessity test set above. Above all, the complex solution shows clearly that the institutional pressures are not a sufficient condition since these are always coupled with other conditions to explain the outcome so that hypothesis (1) is fully tested and confirmed. It

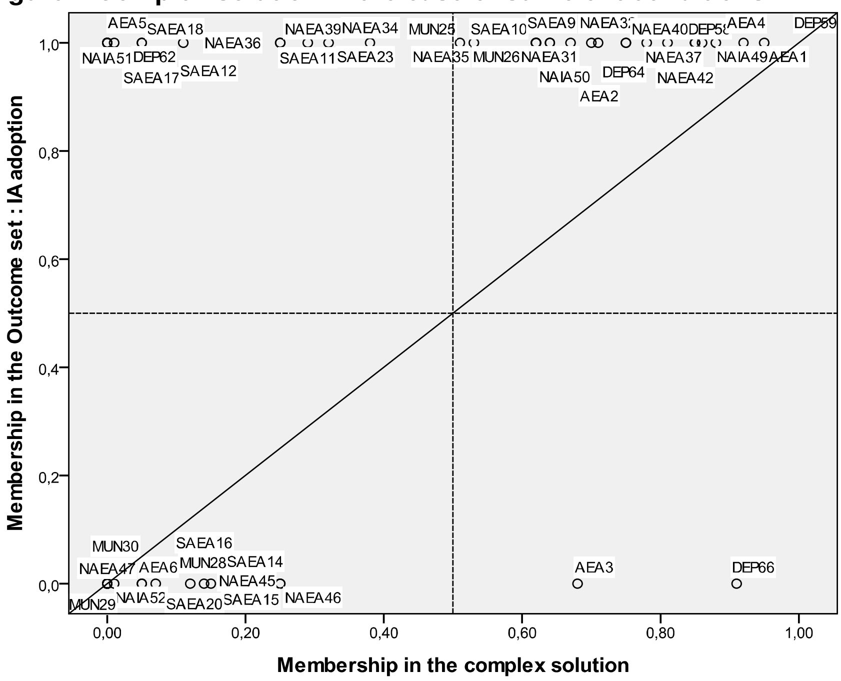
114 See hypothesis (3.1).

means that the neo-institutional framework should be coupled with other conditions to increase its explanatory power.

Fourth, the findings reveal also that the coercive pressure is always coupled with strong financial dependency (Path 1, Path 2, Path 3). This empirical evidence strongly supports the "financial dependence hypothesis"[115]. But the empirical findings also show that additional conditions should be added in most configurations to explain the outcome, especially in the context of public entities where financial dependence is the rule rather than the exception, as shown by the data matrix as well. In other words, the direct connection between the coercive pressure and the dependence of the financial resources is not entirely sufficient to explain IA adoption in the public sector context.

Figure 7 presents the entire complex solution graphically. Note that all cases in the complex solution should be located around or above the diagonal in the top right corner. Note also on the bottom right corner that an autonomous external agency (AEA3) and a department (DEP66) are members of the complex solution but do not have an IA program. These are called contradictory cases and are further analysed in qualitative research.

Figure 7 Complex solution in the case of sufficient conditions

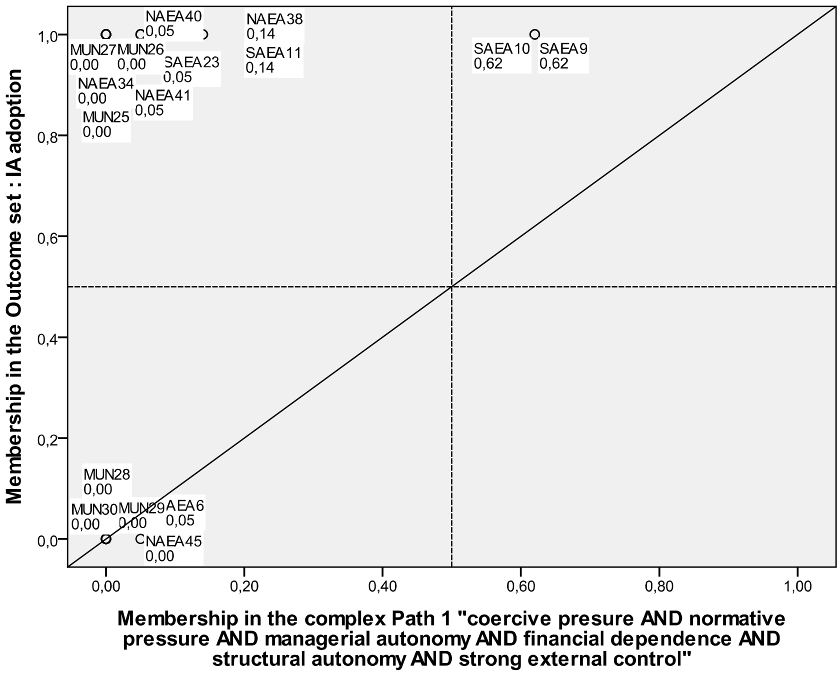


115 See hypothesis (3.2).

The following is a description of each sufficient path complemented by its graphical representation and qualitative findings following a triangular approach[116].

Path 1 (4% of the IA adopters) includes all six conditions: Coercive pressure AND Normative pressure AND Managerial Autonomy AND Financial dependence AND Structural autonomy AND Strong external control. Figure 8 represents Path 1 graphically.

Figure 8 Complex Path 1 in case of IA adoption



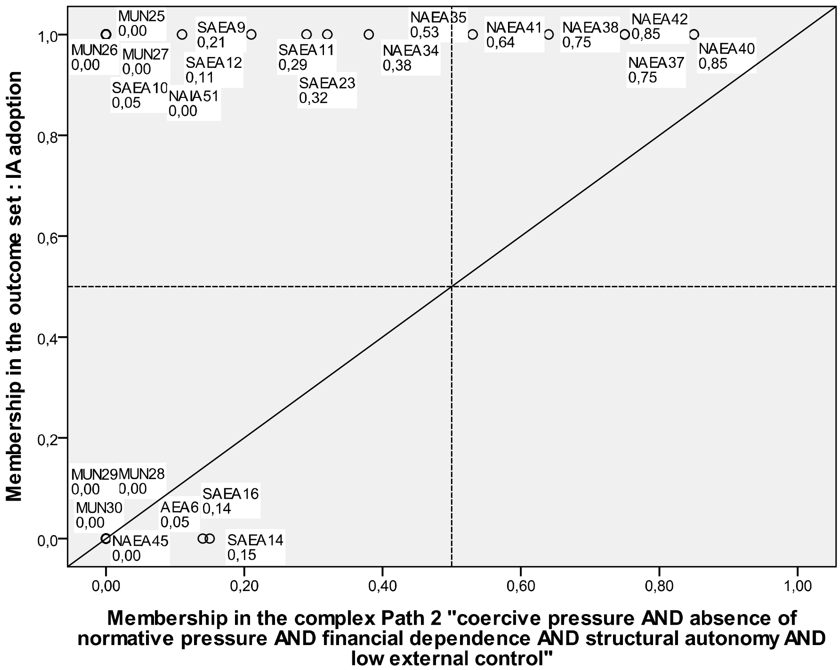
Although the "Path 1" coverage is very small, it is the most consistent path to explain IA adoption, because all conditions are playing a positive role in explaining IA adoption without any contradictory cases. Thus this path, broadly speaking, strongly supports the research hypotheses taken individually and in combination. In this contextual path, the legitimacy threat is likely to be very strong since financial dependence is combined with a strong external control environment which is likely to further scrutinize the fitness requirements put forward by those providing the financial resources, or the supervising authority. Furthermore, these entities have greater managerial capability to respond better to external requirements, while the board is likely to provide the necessary normative pressure to make internal auditing happen in the organization. The qualitative study reveals in this respect that the IA program has sometimes been specified in the public entity's performance management contracts, as well as other types of control devices required as quality assurance systems. The study further reveals that these requirements were actually the result of a mutual agreement between the board and the supervising authority. This group consists of semi-

116 The full description of the qualitative methodology to select the cases, the link with the empirical research and main findings are found in the next chapter.

autonomous external agencies with a strong managerial capacity, including public companies operating in the areas of infrastructure, transport services or development.

Path 2 (15% of the adopters) consists of six non-autonomous external agencies, possessing low financial and managerial autonomy and a low external control environment, that have implemented an audit activity on a coercive basis. Figure 9 represents Path 2 graphically.

Figure 9 Complex Path 2 in case of IA adoption



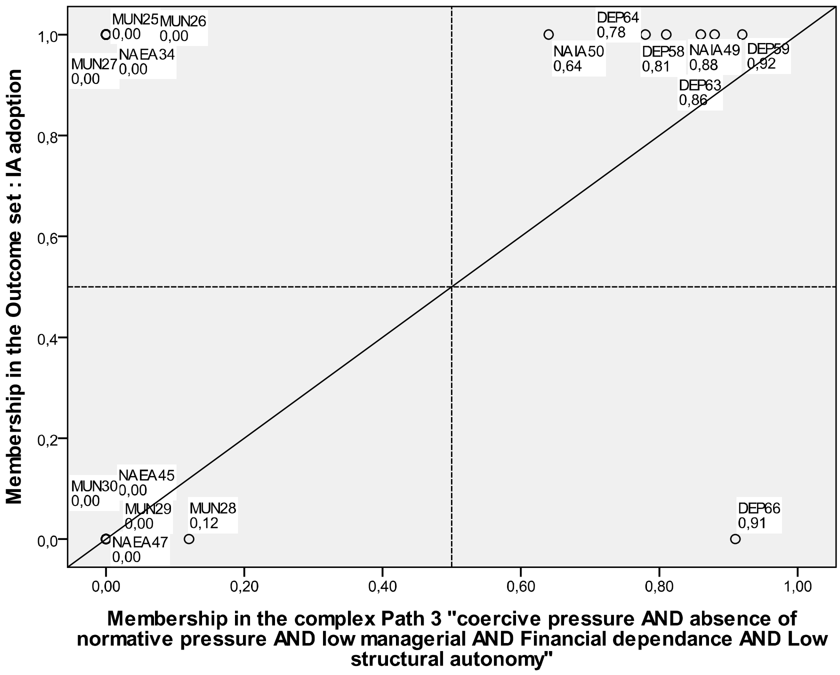
Surprisingly, in this configuration, a strong external control environment is not crucial to explain IA adoption, but can be explained by an external control environment involving only few external audits (or none) instead, without any contradictory cases. This finding somewhat contradicts our theoretical expectation on the positive impact of high external control on IA outcome. It is important to note that most non-autonomous agencies seem to lack a strong external control environment as shown in the data matrix. Therefore, in this context, this observation may be a feature rather than an explanatory condition for some cases. The impact of low external control has been further investigated through qualitative research[117], revealing that when there are few external audits or sanctions, at least when audits are performed by regular public external control agents (Court of Audit, Financial inspectors or other types of public external auditors), an internal audit is viewed as a complement to public external audits. These have been judged insufficient to control all critical risks in two types of situations. One is especially in the context of high risk of fraud. The second situation is because the ordinary external audits are too broad for entities operating in specific technical

117 See issue “4” in the qualitative programme in the following chapter.

sectors such as public health, amenities or transport. Path 2 consists of cases characterized by decentralised execution of tasks in the agricultural, welfare and public health policies.

Path 3 (13% of the IA adopters) consists of four departments and two internal agencies that have implemented an IA program on a compulsory basis alone, with financial dependence and low managerial autonomy. Most cases of this path have implemented IA program following the federal IA Royal Decrees viewed in chapter one. Figure 10 represents Path 3 graphically:

Figure 10 Complex Path 3 in case of IA adoption



This path stresses that the financial dependence is the sole sufficient condition combined with the coercive pressure to explain IA adoption, so that the "financial dependence hypothesis" somewhat is confirmed here[118]. It is important to note first that the consistency rate is likely to be over-estimated because the previous survey (Van Gils et al. 2008) and the qualitative study reveal that most cases in this contextual path have not yet implemented IA program despite the legal requirements mandating it. As a result, more contradictory cases should appear in the box at the bottom right-hand corner, rather than only one department (DEP 66). Thus we strongly assume that this sufficient path is not consistent enough to explain IA adoption.

Further qualitative investigation points out that financial dependence in cases in this category of public entity is not working as a pressure in the sense of DiMaggio and Powell's assumption, because the financial funds are handled more as a financial allowance or budgetary line rather than as a subsidy. Therefore, other pressures or drivers are needed to

118 See hypothesis (3.2).

explain IA adoption in this contextual path. For instance, DEP 63 adopted IA program in 1995 following a financial scandal that resulted from a lack of financial expertise or negligence by the related department and executive minister. Other significant drivers often cited in this context are the character of top civil servants, some choosing to be more exemplary than others in terms of professionalism or ethics. The maturity of the internal functioning of the organisation is also seen as a main driver (or obstacle) to adopting IA program. Above all, most interlocutors of the federal cases stress that the overall federal structural context is too unstable to successfully encourage less-motivated departments to adopt IA program. Federal royal decrees on IA mandates have changed several times in less than 5 years; requiring departments and some agencies from 2002 to implement an audit committee individually, then in 2007, requiring public entities to abolish them and replacing them with a central audit committee for all departments and agencies, which is to be attached under the Council of Ministers. At the same time, a major institutional crisis (2007-2011) that prevented federal institutions to have a federal government within the required time, spun out the creation of the central audit committee which was finally established three years after its mandate. In addition, because of that crisis, official recruitment, promotions and other human and financial resources on which departments and related internal agencies depend to grow, remain frozen. Furthermore, the very recent proposal of the central audit committee to centralize all departmental IA programs into one external IA service is very inconsistent with IA legal requirements, increasingly discrediting the process with regard to the legal requirements for IA.

Path 4 and Path 5 represent the cases that adopt an IA program on a voluntary basis.

Figure 11 Complex Path 4 in case of IA adoption

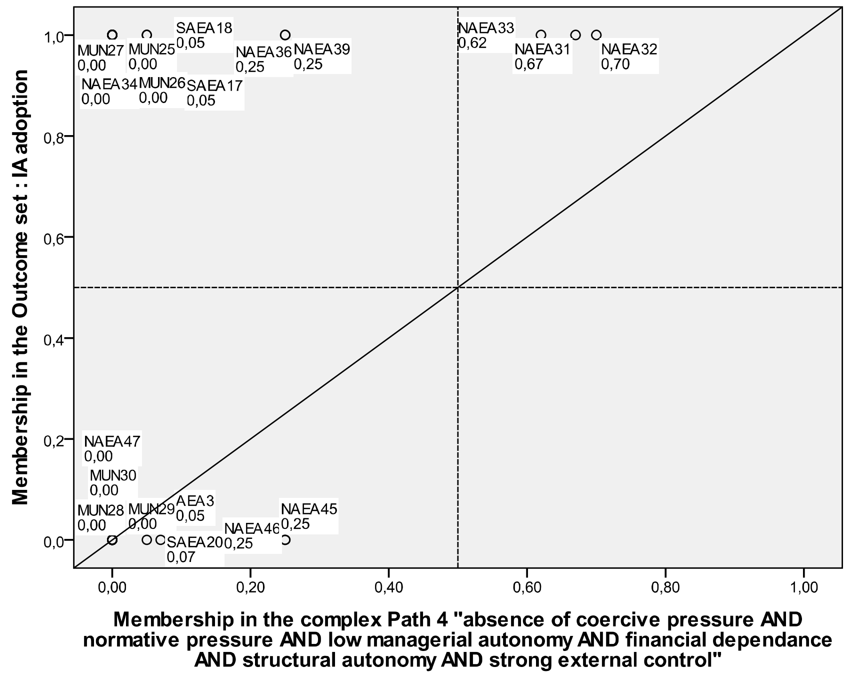
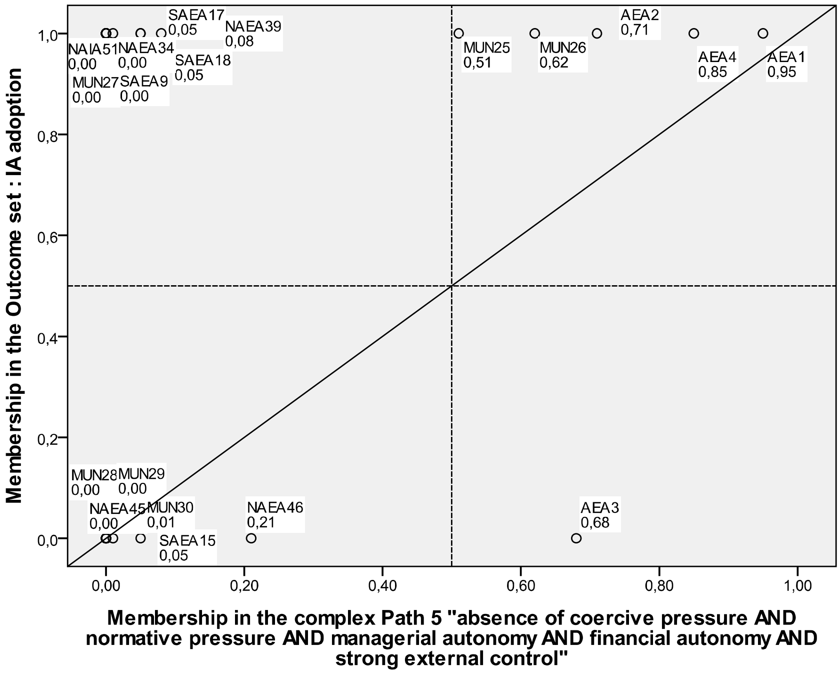


Figure 11 represents Path 4 graphically. Path 4 (7% of the adopters) consists of the same type of external non-autonomous agencies that in Path 2, but having strong external control associated with sanctions. It consists of three agencies that have decentralized execution tasks in welfare policies including public social security institutions where further qualitative investigation noted a kind of mimetism pressure (see also Sarens et al. 2010). The normative pressure can be the result of recommendations made by external auditors through mimetism because these external auditors are supervising other public entities at the same government level when an IA program is compulsory. Secondly, the qualitative survey reveals that mimetism is also fostered by board members because the members sit on other boards in the same sector or government level. Also, boards are likely to implement IA program more easily because it is recommended through good practices established by corporate governance codes.

Path 5 (10% of the adopters) includes three autonomous agencies and two municipalities with some financial and managerial autonomy and a high external control environment. Figure 12 represents Path 5 graphically.

Figure 12 Complex Path 5 in case of IA adoption



In this context, cases are almost likely to adopt IA because the context of the external environment seems to be a sufficient constraining element to pressure public entities into implementing IA, in particular with the public companies such as AEA1, AEA2 and AEA4 having decentralized operational tasks in the transport and telecommunication field. The legitimacy quest is higher because the supervising authority and citizens expect these organizations to be more professional and reliable when performing these tasks compared to centralized administrations. Concerning municipalities, it is very rare to find an IA program in Wallonia and Brussels since the coercive pressure for IA does not yet exist. So, the IA concept is not yet well-diffused or known there. Further investigations showed that the two municipalities have implemented IA via staff individually networking and training, through which they learned about the idea and tried to implement it. The IA project of "MUN25" was strongly supported, guided and legitimized by external auditors coming from the Court of Audit, bringing this project to light.

Minimal solutions for the outcome "IA adoption"[119]

This operation reduces the above complex solution into the most parsimonious solutions by encompassing all logical remainders.

Table 7 Minimal sufficient conditions for the outcome "IA adoption", by decreasing rate of consistency

Solution	C*F*S + "Path 1"	N*c*E + "Path 2"	C*n +	n*s	→IA adoption
Consistency	0.90	0.78	0.71	0.63	
Raw coverage	0.26	0.23	0.26	0.18	
Unique coverage	0.23	0.23	0.01	0.02	
Solution consistency	0.75		Solution coverage	0.69	

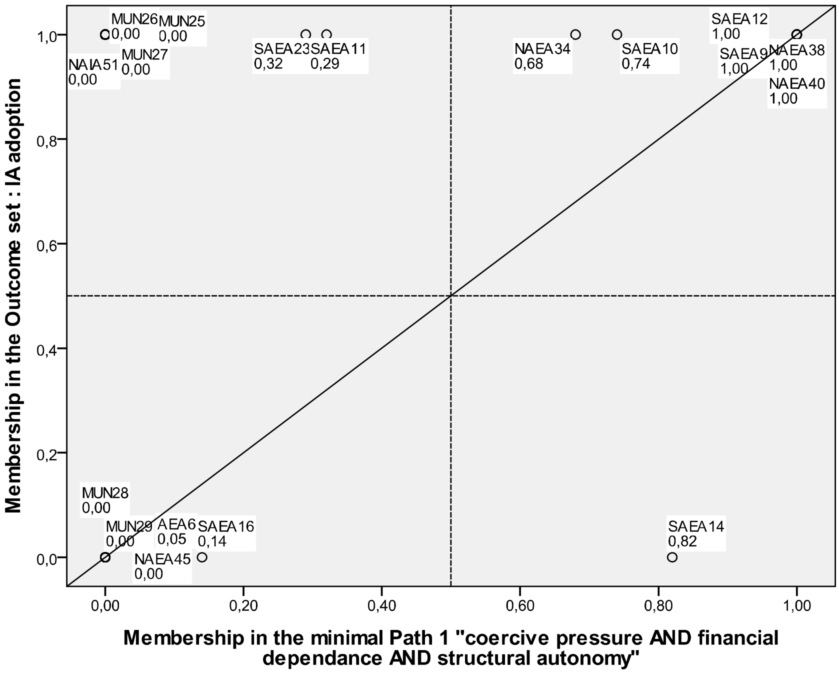
Note: : Where "*" means "AND"; "+" means "OR"; The consistency threshold has been set at 0.74 and the frequency cutoff at 2.00; The gray boxes indicate the results are judged to be consistently sufficient conditions for the outcome.

Table 7 reveals that four minimal assumptions have been suggested in the present analysis, but only the two first (0.90 and 0.78 for Paths 1 and 2 respectively) are consistent enough to justify their inclusion in the final solution explaining IA adoption.

Path 1 is the most consistent minimal solution and represents the cases where IA is mandatory with financial dependence and a structural autonomy. Figure 13 presents Path 1 graphically.

119 The relevant appendix contains the complete formula, including the complex, the parsimonious and the "intermediate" solutions. The intermediate solution is not presented here because it shows the same patterns as the complex formula. Therefore, we opted for the parsimonious formula.

Figure 13 Minimal Path 1 in case of IA adoption

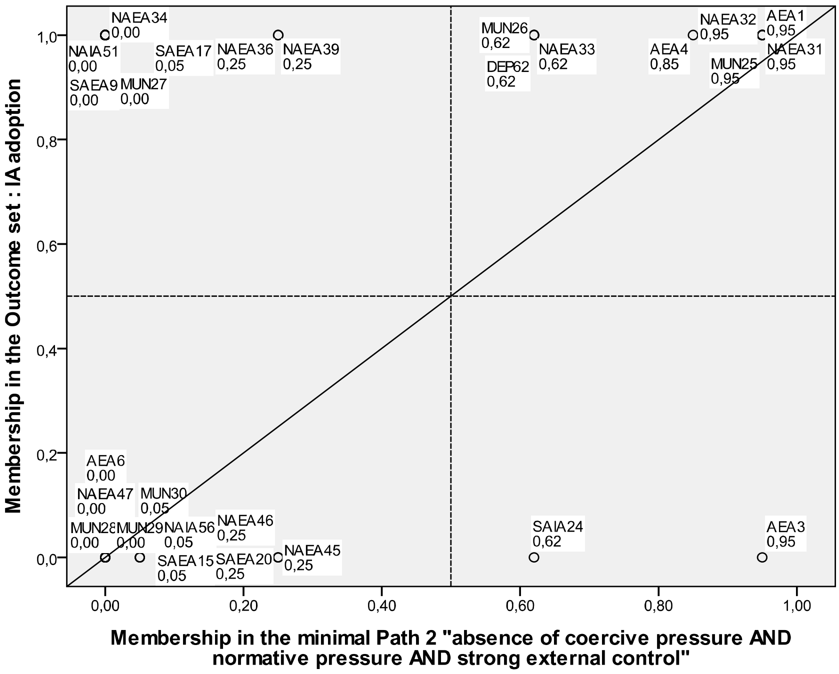


Path 1 is illuminating because the minimization process is high while maintaining a high consistency rate with 10 relevant cases and only one contradiction.

This group covers 26% of the adopters including public companies and other types of public agencies operating, for instance, in amenities, water supply, public infrastructure and structural funds. When IA is mandatory, the simplification confirms two significant trends. On the one hand, high managerial autonomy, strong external control and normative pressure are not as powerful incentives to ensure IA adoption as financial dependence is. Therefore, the “financial dependence hypothesis” is also confirmed here as a specific sufficient configuration. On the other hand, financial dependence has to be associated with the presence of a board, otherwise the path is not consistent. This doesn’t mean that internal entities, such as departments or municipalities or other public entities without a board, are unlikely to adopt IA, as was the case with the complex Path 2 outlined earlier. But the probability of ensuring IA adoption is much higher if the entity has its own governance body, rather than direct representatives from the government. Furthermore, the sole inclusion of the structural autonomy condition, besides the financial dependence in case of a coercive pressure, strongly confirms our previous point that financial dependence should be further moderated in this context. In other words, financial dependence based on financial allowance or budgetary line is irrelevant here. But financial dependence based on being a subsidiary is more appropriate in this context, a fact strongly pointed out by the triangular approach. As discussed earlier, we already know that the presence of a board provides more IA normative opportunities to the public entities. But the inclusion of an external governance body also means that the related public entity is closer to the competitive market involving the right to apply for tenders or other kinds of financial subsidiary programs. Therefore the pressure to conform to the requirements of the financial donator is higher. This is the case with the external agency "NAEA 40" operating in the European agricultural funds. In other words, the financial condition should have been more refined in the survey questionnaire to include details such as dependence on subsidiaries, rather than providing just a general rate on overall financial dependence, a main feature of public entities. The minimization process seems to have re-adjusted the financial dependence condition.

The second minimal solution (Path 2) represents the cases where IA is implemented on a sole voluntary basis and represents 24% of the adopters, including organisations with all types of autonomy profiles, whether external or internal. Figure 14 shows this path graphically.

Figure 14 Minimal Path 2 in case of IA adoption



In this institutional context, all public organisations are likely to adopt IA, provided there is a strongly external controlling environment, which confirms that the strong external control condition is more powerful in explaining IA adoption than the other autonomy attributes.

Three main empirical conclusions can be highlighted so far. First, in the case of coercive pressure, financial dependence is a crucial contributory determinant for IA adoption. So, this confirms the "financial dependence hypothesis". But this causal combination is not sufficient to explain IA adoption. Additional determinants are needed to explain IA adoption, or the financial dependency condition should be refined. More particularly, the findings show that the financial dependency condition combined with the coercive pressure should be coupled with the structural autonomy condition to be a sufficient configuration to explain IA adoption. Second, when IA is only recommended, external control is almost a sufficient condition to explain internal audit adoption. Third, other conditions increase the chance of adopting IA, so that the more decentralised and autonomous agency, the more likely it is to adopt IA whether the IA is recommended or compulsory.

Outcome as "IA professionalization"

The population of cases of this analysis consists of the 38 entities that have adopted an IA program in the previous analysis. The objective is to identify what are the crucial causal combinations likely to contribute to the professionalization of a given IA program.

Before starting the analysis, a number of cases have been excluded from the sample to avoid biased results. As argued earlier, IA programs that have been in existence for 2 years or less have been excluded from the sub-population of cases (removing 8 organisations in total). Another case was removed because of poor quality of data. In total, 29 cases have been retained for this analysis.

Description of the data matrix table

Table 8 is the data matrix table of the 29 cases to be analysed in this section and includes fuzzy set membership scores and dichotomised values according to the QCA procedure with the same six conditions[120]. Note in the last column that the outcome has been changed: now it is "IA professionalization". Different fuzzy set membership scores have been suggested to fit the various maturity stages to scale the outcome as "IA professionalization": "Unsustainable" = 0.33; "Sustainable" = 0. 67; and "Professional" = 1. To recall what was stipulated earlier by the IA Capability Model, IA programs which are at the "initial" stage are considered to be unsustainable, since IA procedures do not yet occur with designated frequency and are not yet formalized enough, while not yet strongly supported by the hierarchy.

The data matrix table shows that 16 cases out of 29 (55%) are still at "unsustainable" stage (or "initial"), a score still very high despite excluding all the youngest IA programs. Ten cases (34%) have achieved a "sustainable" level (or "infrastructure") while only 3 cases have achieved a "professional" level.

[120] The raw data is found in appendix.

Table 8 Data matrix table with IA age and all fuzzy set scores for the six conditions and the outcome of 'IA professionalization

Row #	Case labels	IA age	CONDITIONS						OUTCOME
			Coercive pressure (C))	Normative pressure (N)	Managerial autonomy (M)	Financial dependence (F)	Structural autonomy (S)	Strong external control (E)	IA Profession-alization (PRO)
1	AEA1	16	0	1	1.0	0.0	1	1.0	1
2	AEA4	10	0	1	1.0	0.0	1	0.9	1
3	AEA2	12	0	1	0.7	0.0	1	1.0	0.67
4	AEA5	10	1	1	1.0	0.0	1	0.9	0.33
5	AEA7	14	1	1	1.0	0.0	1	0.3	0.33
6	SAEA18	10	0	1	1.0	1.0	1	1.0	1
7	SAEA10	5	1	1	1.0	0.7	1	0.6	0.67
8	SAEA12	3	1	1	0.9	1.0	1	0.1	0.33
9	SAEA9	9	1	1	0.8	1.0	1	0.6	0.33
10	SAEA23	4	1	1	0.3	0.3	1	0.1	0.33
11	NAEA41	4	1	1	0.4	1.0	1	0.1	0.67
12	NAEA31	5	0	1	0.3	1.0	1	1.0	0.67
13	NAEA34	8	1	0	0.4	0.7	1	0.6	0.33
14	NAEA35	3	1	0	0.5	1.0	1	0.3	0.33
15	NAEA40	14	1	1	0.2	1.0	1	0.1	0.33
16	NAEA38	7	1	1	0.1	1.0	1	0.3	0.33
17	NAEA33	3	0	1	0.4	1.0	1	0.6	0.33
18	NAEA36	8	0	1	0.5	1.0	1	0.3	0.33
19	NAEA39	12	0	1	0.4	0.9	1	0.3	0.33
20	NAIA51	3	1	1	0.4	0.9	0	0.1	0.67
21	NAIA19	9	1	0	0.4	1.0	0	0.1	0.33
22	MUM25	10	0	1	0.5	0.2	0	1.0	0.67
23	MUN26	5	0	1	0.8	0.2	0	0.6	0.33
24	DEP62	11	1	1	0.2	1.0	0	0.6	0.67
25	DEP57	3	1	1	0.2	1.0	0	1.0	0.67
26	DEP60	11	0	1	0.5	1.0	0	0.6	0.67
27	DEP63	10	1	0	0.1	1.0	0	0.3	0.67
28	DEP61	8	1	1	0.1	1.0	0	0.6	0.33
29	DEP59	4	1	0	0.1	1.0	0	0.6	0.33
			18	24	10	21	19	17	13

Note = AEA=Autonomous External Agency; SAEA = Semi-Autonomous External Agency; SAIA = Semi-Autonomous Internal Agency; NEAE: Non-Autonomous External Agency; NAIE = Non-Autonomous Internal Agency; DEP = Department; MUM= Municipality

If we go deeper in the data matrix table, we notice that the AEA and the SAEA with high managerial capacity have achieved the highest level of IA maturity (rows 1, 2 and 6). The DEP show proportionally a relatively good score, since 4 out of 6 have achieved an "infrastructure" level (rows 24-27). Conversely, most NAEA are still at "initial" stage (rows 13-19).

We can already note that some cases are still at the "initial" stage in spite of their longevity (see rows 4, 15 and 19). Inversely, some public entities appear to have been quicker than others in professionalizing their IA programs (see rows 20 and 25).

Necessary conditions for the outcome of "IA professionalization"

Table 9 shows the results of the analysis of the necessary conditions for the outcome "IA professionalization".

Table 9 Analysis of the necessary conditions for the outcome of "IA professionalization", by decreasing consistency rate

Conditions tested		Consistency	Coverage
Normative pressure	(N)	0.87	0.54
Strong external control	(E)	0.76	0.77
Managerial autonomy	(M)	0.75	0.76
Financial dependence	(F)	0.73	0.52
Structural autonomy	(S)	0.64	0.50
Coercive pressure	(C)	0.53	0.44

The test reveals that none of the six conditions are necessary conditions, but of the six, the normative pressure seems to be the most powerful individual contributor to explain IA professionalization.

Sufficient conditions for the outcome of "IA professionalization"

The Truth Table and related detailed descriptions are set in Appendix 5.6. As a summary, the Truth Table shows that the empirical cases cover 18 combinations out of 64, so the limited diversity is much higher here than with the analysis of the outcome "IA adoption". Among the 18 combinations, 7 (39%) are sufficient conditions for the occurrence of sustainable IA services, while 3 combinations (17%) show contradictory outcomes. Finally, 8 combinations (44%) are still at the "initial" stage, and therefore are unsustainable.

The results of the analysis of the sufficient conditions for the outcome "IA professionalization" are displayed in Table 10.

Table 10 Analysis of the complex solution for the outcome "IA professionalization", by decreasing consistency rate.

Solution	c*N*M*S*E + "Path 1"	N*M*F*S*E + "Path 2"	c*N*m*F*E + "Path 3"	C*N*m*F*s "Path 4"	→IA Profession-alization
Consistency	0.98	0.91	0.89	0.74	
Raw coverage	0.30	0.23	0.16	0.15	
Unique coverage	0.16	0.09	0.07	0.15	
Solution consistency: 0.87			Solution coverage: 0.63		

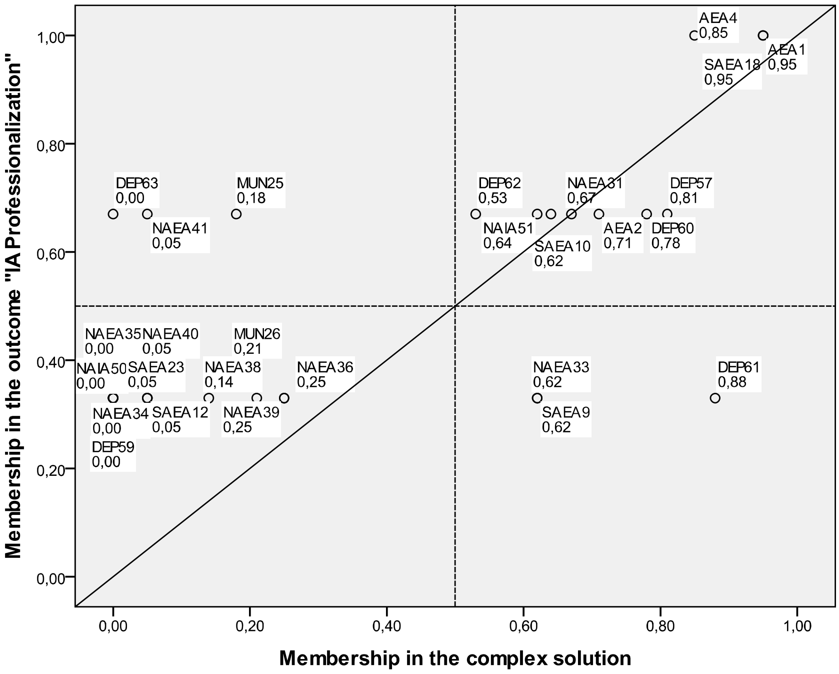
Note: Where "*" means "AND"; "+" means "OR"; The consistency threshold has been set at 0.79 and the frequency cutoff at 1.00. The gray boxes indicate the results are judged to be consistently sufficient conditions for the outcome.

Table 10 shows that the complex solution explained 63% of the sustainable IA programs cases with a consistency rate of 0.87, while four combinations lead to sustainable IA programs by decreasing rate of consistency. Therefore, the "multicausal hypothesis" is also confirmed here.

If we examine further the complex solution, some significant trends can already be seen. First, the normative pressure is present in all complex paths, which means that the normative condition is more significant in case of IA professionalization than in case of IA adoption. Conversely, the presence of the coercive pressure is less important here than in the case of IA adoption, since it is to be found only in "Path 4", the lesser consistent one. More precisely, the sole normative pressure doesn't mean that it cannot be combined with a coercive pressure, but the normative pressure seems to have an advantage over the coercive pressure as a sufficient condition contributing to IA sustainability. Last, if we compare the cases explained on the basis of the consistency rate of their related path, we can broadly say that the more decentralized the public entity, the more professional is the IA service.

Figure 15 displays the results of the complex path graphically.

Figure 15 Complex path in case of IA professionalization



The graphic highlights clearly this broad trend by putting most decentralised public entities at the top right of the corner, which includes all IA professional services. Note also at the bottom right corner that NAEA 33, DEP 61 and SAEA 9 are members of the complex solution but their internal services are unsustainable, as expected. These have been further investigated in qualitative research and are reported below in their respective paths.

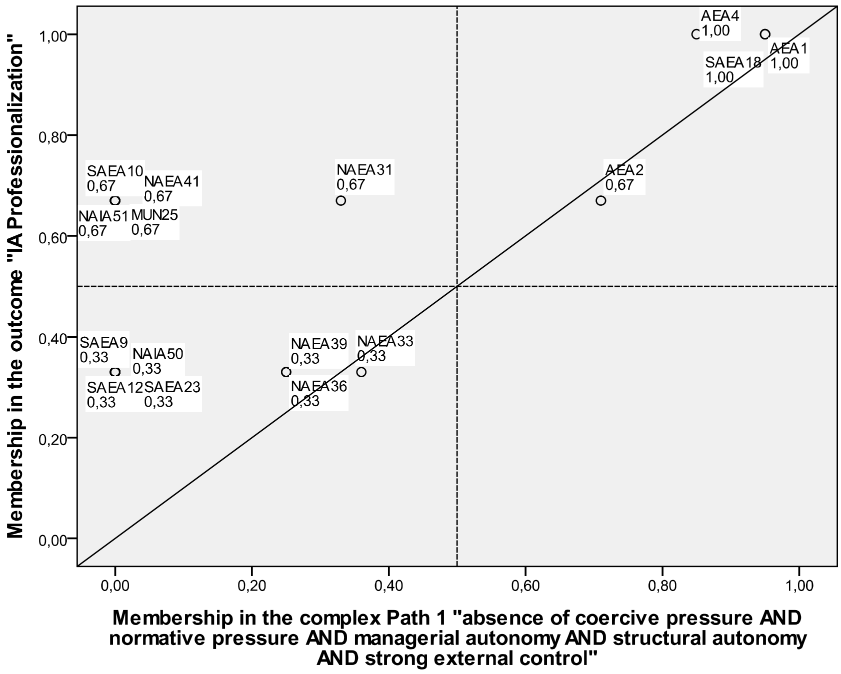
The following is a description of the four paths. Path 1 and Path 2 are similar in terms of managerial driving conditions (Normative/Managerial/Structural), and a strong external control pressure. Essentially financial dependence seems to make Path 2 different from Path1.

Path 1 (52% of the sustainable IA programs) is the most consistent complex path with regard to IA professionalization. The configuration includes the managerial driving conditions, a strong external control environment, the presence of a normative pressure, the absence of coercive pressure, and financial autonomy. Note that financial autonomy is likely to reinforce the overall managerial capacity of related public entities, as noted in other empirical studies (Verhoest, 2010). Having more financial autonomy allows the organization to be more flexible in terms of human resources policy and other resources, including, for instance, by suggesting more competitive working conditions. Path (1) covers four of the IA sustainable programs, including the three "professional" ones as shown by

Figure 16 (AEA 1, AEA 3, SAEA 18), in particular public companies operating in the telecommunication and transport areas.

Figure 16 shows that there is no contradictory case in Path 1.

Figure 16 Complex Path 1 in case of IA professionalization



Not surprisingly, Path 2 (23% of sustainable IA services) overlaps with Path 1 coverage since, as explained earlier, these two paths are very similar. Figure 17 shows Path 2 graphically.

Figure 17 Complex Path 2 in case of IA professionalization

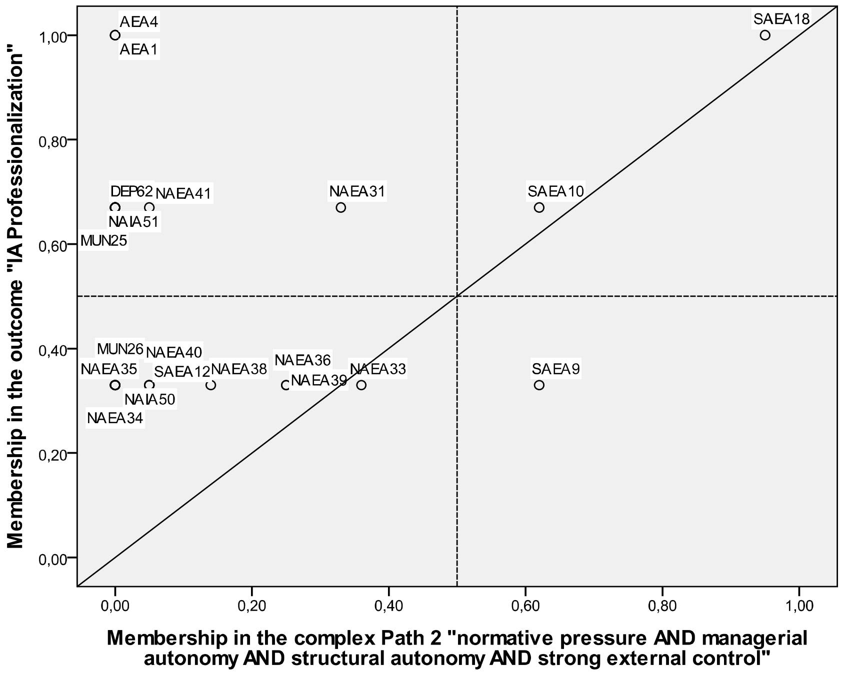
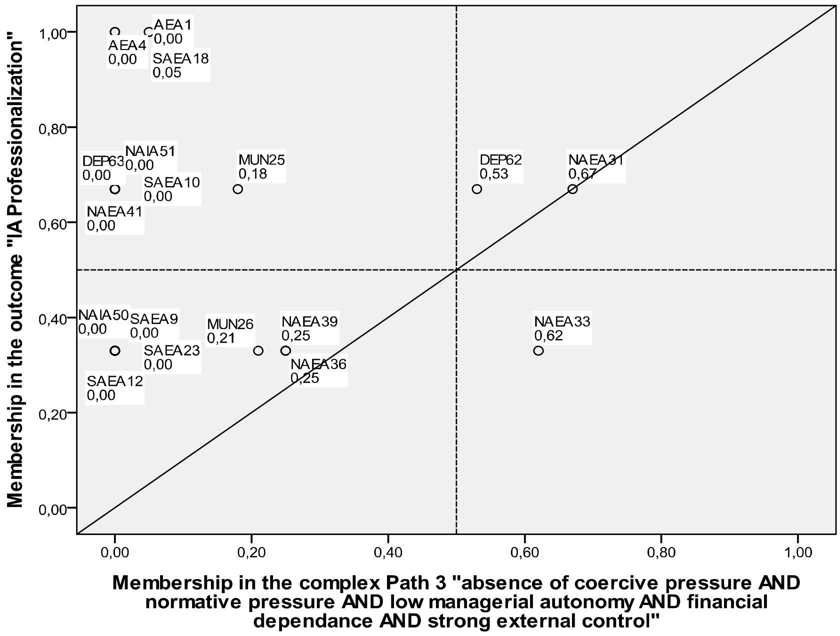


Figure 17 shows that there is one contradictory case (SAEA 9): it fulfils all crucial conditions, but this case is still at the "initial" stage in spite of existing for ten years. Qualitative investigation pointed out that this IA program reports mainly to the agency board members who have no executive functions in the management of the agency. Furthermore, top civil servants are not actively involved in the audit programming, so that there is an implicit feeling that these are the auditees rather than the partners with the auditors. Consequently, the internal audit function is poorly supported by the management (i.e. most recommendations are not implemented), also because there is likely to be a gap between administrative and political risks. This finding was also confirmed by other case studies within this dissertation, whatever the configuration of conditions or experience of the internal auditors, in particular IA programs in local cooperatives after fraud cases including for instance "Affaire de la Carolo" in 2005.[121]

Path 3 includes the presence of a normative pressure and financial dependence, and a strong external control in case of low managerial autonomy. This path covers two of the sustainable IA programs (32%) and consists of a department and external agency working in the welfare sector. Figure 18 represents Path 3 graphically.

121.The "Affaire de la Carolo" burst into the open on September 5th, 2005 when one of the local political executives of the opposition made public a report of an audit of the Walloon social housing company called the" Carolorégienne". This company was founded in the municipality of Charleroi governed by the Socialist Party. This report highlighted corrupt practices in the management of the Carolorégienne involving both company executive managers and local socialist political executives in charge of the administration of the entity. This case led to the indictment and resignation of some of them. Furthermore, this case had a negative impact on the Socialist Party at other government levels in Belgium. That same year, for instance, saw the resignation of the Ministry-President of the Walloon region, which was related

Figure 18 Complex Path 3 in case of IA professionalization

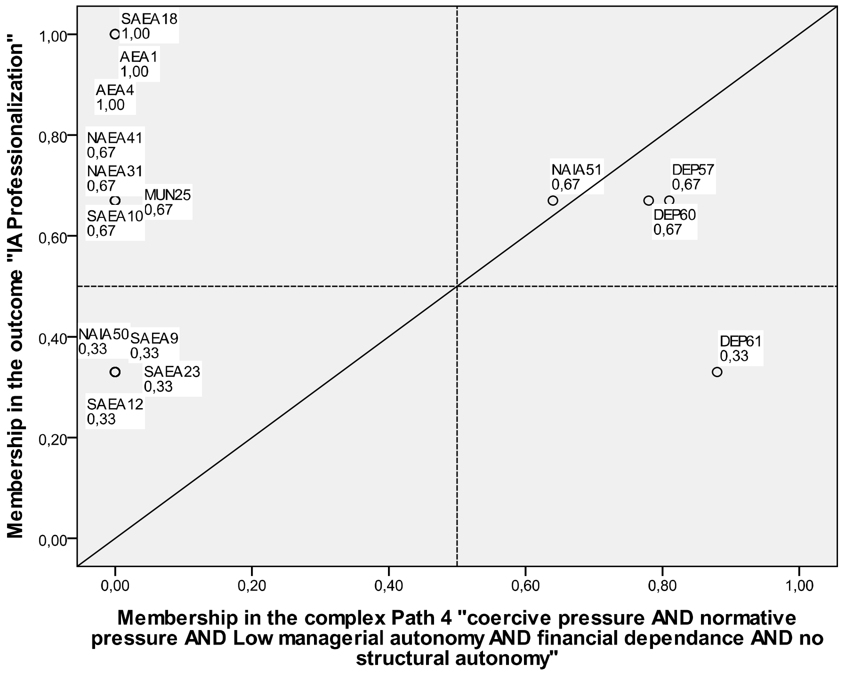


Path 3 confirms that the normative element is important to ensure IA professionalization, through the influences of management and external control. Qualitative investigation reveals first that a strong external control environment provides a culture of greater accountability that induces the organisation to be more reliable. Also, because of the external audits, especially through quality assurance and related certifications programs, internal audit missions are significantly facilitated. As explained by most interviewees in the case studies dealing with high external control[122], two facts stand out. On the one hand, the staff is more used to transparency. On the other, the staff is more prepared to provide information since the organization has more formalized and documented processes. Lastly, the financial dependence condition is not working here as an external pressure since there is no IA legal mandate; instead, in this path it is a contextual characteristic (most public entities are financially dependent).

Path 4 (15% of sustainable IA programs) consists of departments and internal agencies with low managerial autonomy and financial dependence, with the presence of both normative and coercive pressure. As the consistency rate of this path is very low, it means that the six conditions do not explain these cases well. Figure 19 represents Path 4 graphically.

Figure 19 Complex Path 4 in case of IA professionalization

122 See issue 7 and 8 in the qualitative program in the following chapter.



Qualitative research further investigates these cases, particularly those at the federal level, that are capable of sustainable IA programs despite a very low overall autonomy[123]. The qualitative survey reveals that most IA sustainable programs at the federal level have been implemented before the federal IA royal decrees (DEP 60, NAIA 51 above, and DEP 63 in the data matrix table). For instance the IA program of the NAIA 51 was created at the same time as the agency, in 2000 before the federal IA royal decrees. In this context, the coercive pressure is seen as a way to legitimate and sustain more IA internal capabilities already established within these organisations (there are now more “official means”).

The qualitative phase also investigated the other drivers that feed the normative pressure condition, other than the external control condition, which is a subset element of the normative condition in this complex path. To summarize the qualitative findings with this issue, the internal auditors in the federal cases stressed that top civil servants should demand an IA function independent of the legal IA requirement. In DEP 57, the internal audit function is really seen by the top civil servant as a way to manage its mandate better. Moreover, this IA program reports directly to him. NAIA 51 is an agency operating in the public health sector and its audit committee is composed of various profile members, including politicians, top civil servants, stakeholder representatives, and experts. This is so that there are various kinds of principals who are actively involved in the audit programmation and reporting. Secondly, the IA charter is signed by the executive civil servant, and also by the executive minister in charge of the agency. This practice is rare in our case population. Furthermore, most staff and executives are technical experts having long-term experience with internal and external audits before and during their career at the

123 See issue 8 in the qualitative program in the following chapter.

agency. This lengthy experience extends to the top management and other key principals of the internal audit service.

Lastly, the contradictory case (DEP 61) confirms the impact of the motivation of top management on IA professionalization. The IA program of DEP 61 was one of the first IA programs created following the IA federal mandate. At the same time, the European Commission required this department to implement an internal audit function to certify the annual accounts within the framework of European programs, as was the case for other public entities operating in the same European programs. Since its creation, only a few reporting contacts has been established between the IA program and top civil servants, which clearly illustrates that top-management motivation with regard to the IA function is driven more by a desire to fulfil legal requirements than it is by the desire to increase the overall performance of the organisation.

Minimal solutions for the outcome "IA professionalization"

This operation minimizes the above complex solution in the most parsimonious paths by including all logical remainders[124].

Table 11 Analysis of the minimal sufficient conditions for the outcome "IA professionalization", by decreasing consistency rate

Solution	c*N*M*S*E + "Path 1"	N*m*F*E + "Path 2"	N*S*F*E + "Path 3"	C*N*m*F*s "Path 4"	→IA Profession-alization
Consistency	0.98	0.87	0.82	0.74	
Raw coverage	30%	32%	26%	15%	
Unique coverage	16%	0.06	0.06	0.04	
Solution consistency: 0.87			Solution coverage: 0.63		

Note: Where "*" means "AND"; "+" means "OR"; The consistency threshold has been set at 0.79 and the frequency cutoff at 1.00. The gray boxes indicate that the results are judged to consistently sufficient conditions for the outcome.

124 The parsimonious process made strong simplifications with lower consistency and incoherent paths. So we opted for the intermediate solution. This includes only counterfactual cases in line with our theoretical framework, i.e. counterfactual cases that make "more sense". That means cases that are plausible in reality. Here we have selected only counterfactual cases that include at least one institutional pressure, since it is a necessary condition as noted by the previous test of necessity for the outcome of IA adoption.

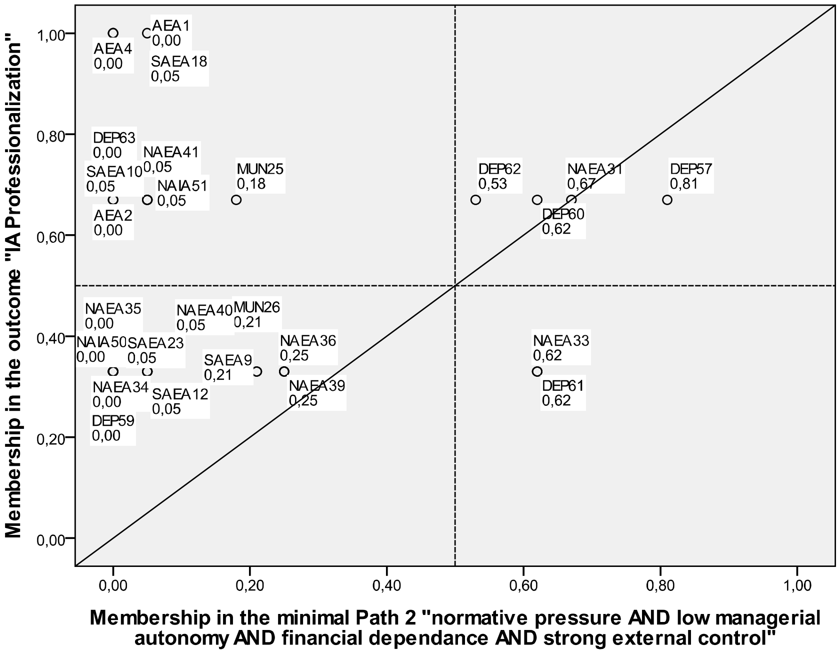
Table 11 reveals that four minimal assumptions have been suggested in the present analysis, but only the first two are consistent enough to justify its inclusion in the final minimal solution explaining IA adoption.

It is worth to point out that both solution consistency and coverage rate for Path 1 and Path 4 are similar to the complex solution, and only very little simplification has been suggested in the remaining two paths.

Path 2 is similar to the previous complex Path 3, by removing only the absence of coercive pressure while its empirical coverage increases from 16% to 23%.

Figure 20 shows the graphic representation of Path 2.

Figure 20 Minimal Path 2 in case of IA professionalization



Path 2 (32% of sustainable IA programs) consists of three departments and an external agency with low managerial autonomy including normative pressure, strong external control environment, and financial dependence. The explanatory power of the financial dependence condition is difficult to interpret since the structural autonomy has any influence here. Furthermore, note that Path 2 also absorbs some cases from Path 4, which includes the presence of a coercive pressure, namely DEP 57, DEP 60 and DEP 61. The simplification shows first that the coercive pressure is not a crucial condition for IA professionalization. Second, it confirms that the normative pressure is a sufficient condition but these cases need additional forces to ensure more matured IA programs as discussed earlier, in particular the external control condition.

Path 3 (26% of the IA sustainable services) is similar to the previous sufficient Path 2 by removing only the managerial autonomy condition. But the consistency rate diminishes considerably (from 0.91 to 0.82), while its coverage does not extend much (from 0.23 to 0,26). Thus this minimization process is unremarkable.

As a last empirical finding, the QCA test has been conducted also in case of absence of IA outcomes, with no major findings except in case of IA programs which are unsustainable[125]. Two main complex paths have been retained because these represent two different institutional contexts and both are large in coverage and in consistency. The first complex path includes the coercive pressure and financial dependence and low external

125 See appendices for details.

control and low managerial autonomy. It shows that all IA programs that are mandated on a legal basis are likely to be unsustainable in cases of low managerial flexibility coupled with a low external control environment. These organisations have the least managerial capacity because this condition is coupled with low financial autonomy and represent 40% of the IA programs at the initial maturity stage, including departments and agencies. The second path includes the normative pressure and financial dependence and structural autonomy and low external control and low managerial autonomy. It presents the same low managerial and low external control conditions. In this case, normative elements are probably associated with the presence of a board, but the organisation may not have the managerial capacity neither clear external constraining pressure to make the IA program more professional. This path consists of external agencies with the least managerial autonomy. They represent 28% of the IA programs at the “initial” stage.

To summarize the conditions required to ensure IA professionalization, none of the six conditions are necessary, but the empirical test reveals that the normative pressure taken alone is the largest determinant. However, that is still not sufficient to explain the entire picture.

The presence of strong external controls appears to be a core condition, besides the normative core condition. The other conditions are also working as positive forces except the coercive pressure and the financial dependence, which appear here to have a rather trivial effect. More particularly, if these determinants are combined with managerial performance drivers, here high managerial and structural autonomy, as in the Path 1. the configuration is very reliable and not subject to minimization. In this case, all organisations with this combination of determinants have sustainable IA programs with no contradictory results. These also include all the “professional” cases. This combination strongly supports NPM doctrine, so the “NPM hypothesis” is confirmed in our research[126].

126 See hypothesis (3.3).

Summary of the empirical findings

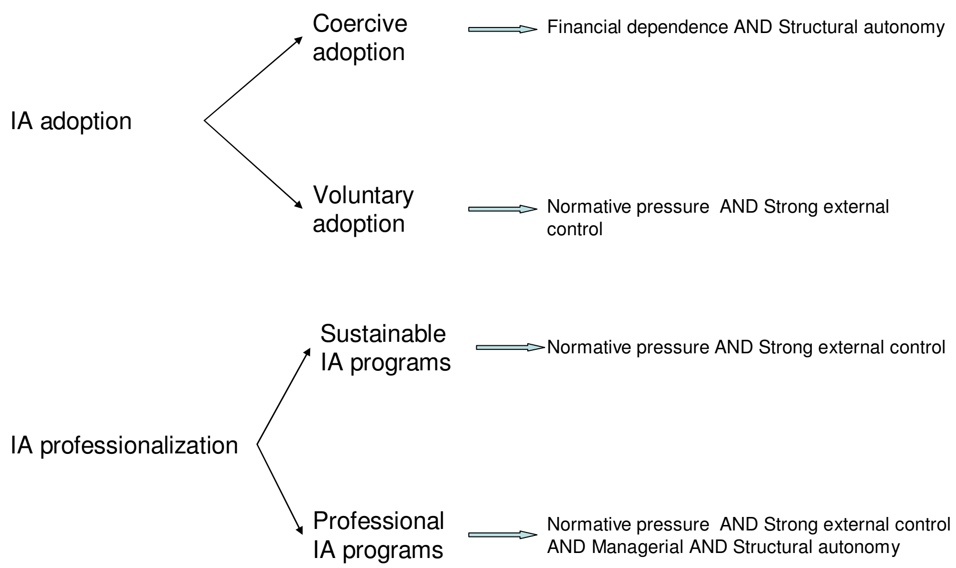
To summarize the empirical test, the findings show first that the presence of institutional pressures is a necessary condition, but not sufficient to explain IA adoption and professionalization. Autonomy attributes have proven to be sufficient conditions when combined with institutional pressures to explain IA outcomes in most cases. Although there is no much high level of generalisation to explain both IA phenomena, the empirical test showed first that there are various paths which lead to the same outcome, second, depending on the contextual path, some conditions are more crucial than others, while a similar condition may produce a different impact on IA outcome. Furthermore, the QCA approach outlines some significant paths that are empirically rare while these likely are to be shadowed by traditional quantitative techniques, in particular for public entities with high financial and managerial autonomy.

With regard to IA adoption, in the case of coercive pressure (when IA is compulsory), financial dependence is always identified as a main condition prompting IA adoption. But this combination is not sufficient to ensure that most public organisations will adopt IA. This path also should include the presence of an independent governing board to ensure that this combination is sufficient enough to explain IA adoption. The structural autonomy provides more implicit normative opportunities while it also implies that the public entity has a distinguished legal status and closer to market competitiveness; its quest for legitimacy matters more with regard to receiving financial funds than a central administration. Managerial autonomy, high external control and normative pressure are additional forces that increase the reliability of the formula, but these are not as powerful to explain IA adoption in this context. In the case of voluntary IA adoption, a strong external control environment associated with sanctions or incentives is a sufficient formula to explain IA adoption in most cases involving a normative pressure alone. It means also that a strong external environmental control is exerting both a normative pressure and an implicitly coercive pressure on these organizations to adopt an IA program. The other conditions increase the likelihood that organizations will adopt IA in this context, but these don't appear to be as powerful in ensuring IA adoption, in particular the managerial autonomy condition.

With regard to IA professionalization, the findings reveal that IA adopters that have no normative elements favourable to IA program are likely to have no sustainable IA programs. This is true even if the IA is clearly mandated. It also means that organisations that have implemented an IA program on a voluntary basis have a greater chance of achieving sustainability and professionalization in their IA programs. Second, normative pressure is a crucial element, but not a sufficient condition to ensure IA professionalization. A strong external control environment appears to be essential in most cases to having sustainable IA programs. Not only external auditors will act as an implicit constraining pressure on IA programs to appear more reliable, but these also will facilitate internal audits while providing direct recommendations to increase the professionalization of IA programs. With regard to the financial dependence condition, it can reinforce IA professionalization as a constraining pressure in the sense of the DiMaggio and Powell's assumption, but it seems not to be a crucial condition since professionalization also occurs in cases with high financial autonomy. In that context, the more a public entity generates its own financial income, the more it will be flexible in terms of managerial capacity and safe from threats of a budget cut.

To conclude, first, the empirical test confirms the multicausal hypothesis. Furthermore, the empirical test confirms that the conditions that motivated the adoption of an IA program also shaped the way it has been implemented as discussed in the theoretical framework. Last qualitative investigation was very helpful to better capture the complexity of the cases as well as to interpret the explanatory power of the conditions, because these act in different way in case of IA adoption and professionalization. The figure below summarizes the main findings in terms of conditions with respect to IA adoption and IA professionalization.

Figure 21 Summary of the core conditions in case of IA adoption and IA professionalization



3. Qualitative study based on a triangular approach with the fuzzy set empirical test

3.1. Introduction

The dissertation examines the influence of the six conditions: the coercive pressure, the normative pressure, the managerial autonomy, the structural autonomy, the financial dependence and a strong external control environment, first on IA adoption; second on IA professionalization. The hypotheses have been tested in the Belgian public context through a national quantitative survey from which a population of cases has been extracted. A configurational analysis based on Qualitative Comparative Analysis using Fuzzy Sets has been conducted; first using 66 public entities at the federal, regional and local levels (excluding Flanders) to test IA adoption; second, using 29 IA programs that were a subset of cases to test IA professionalization.

The quantitative findings confirm that institutional pressures are necessary but not sufficient conditions to explain IA adoption. When combined with institutional pressures, autonomy attributes have been proven to be sufficient conditions to explain IA adoption in most cases. Some conditions are more crucial than others, and they depend on the contextual institutional path; the multi causal model hypothesis is confirmed here. Some level of generalization can also be gained to explain IA adoption and professionalization as follows.

With regard to the diffusion (or adoption) of IA programs, the combination of financial dependence and the presence of a board in the organization chart is a sufficient configuration to explain IA adoption when IA is required. Furthermore, this fits the financial dependence hypothesis well. Second, the normative pressure alone combined with a strong external control is a sufficient configuration to incline public entities to adopt an IA program. This configuration fits the NPM hypothesis to a certain extent: the other conditions increase the likelihood for IA adoption, but these do not appear to be as powerful preconditions to ensure IA adoption.

With regard to IA professionalization, the empirical findings reveal that when IA adopters have no normative pressure, they are likely to lack any sustainable IA programs; this likely holds true even if the IA program is explicitly mandated**.** Second, the normative pressure is a crucial condition, but requires the presence of other conditions to explain IA professionalization. A strong external control environment appears to be essential in most cases for leading to sustainable IA programs. When combined with more conditions, these configurations will lead to professional IA programs without exception. In this case, managerial autonomy seems to be more important for contributing to IA professionalization than it is for facilitating the adoption of IA; therefore, the NPM hypothesis is fully tested in this context.

The empirical test reveals additional issues that merit further qualitative investigation. First, a consistent path (complex Path 4 in the case of IA adoption) contradicts the expected positive individual effect of strong external control on IA adoption. It is a contradiction because IA adoption occurs here under conditions of low control. Second, some ambiguous or inconsistent paths merit further investigation. Our main research question then is to discover the main determinants which lead to IA adoption or IA professionalization. Among other things, this involves understanding why, in some cases, entities do no have IA programs, or do not have sustainable programs, despite their longevity.

The qualitative phase aims at investigating further the main configurations and issues highlighted during the quantitative test, using a triangular approach. The other qualitative objective is to test the mimetism condition, which was not empirically tested as discussed in the theoretical framework.

This chapter starts with a description of the methodology used to select cases in the context of QCA using a triangular approach. It then applies this methodology to select the cases in the dissertation population of cases with the respective qualitative issue. To conclude, we highlight the main qualitative findings per issue and their contribution to the empirical test and the theoretical framework.

3.2. Triangular approach with the empirical test

As stated previously, the main purpose of the qualitative investigation is mainly to improve the understanding and validity of the empirical model following a triangular approach (George and Bennett, 2005).

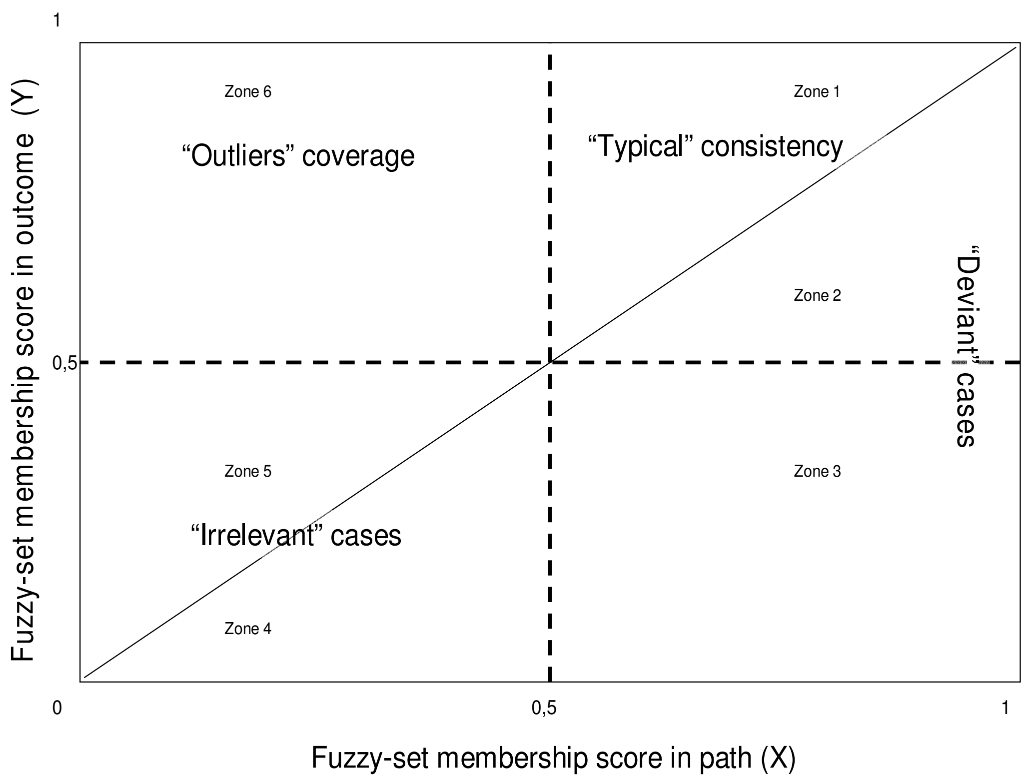
Surprisingly, there is very little literature on rigorous methods linking the combination of QCA and other set-theoretic methods to qualitative studies (Schneider and Rohlfing, 2012 forthcoming). Consequently, Schneider and Rohlfing suggest a formal approach to systematically integrate the QCA approach with the qualitative research. On the one hand, empirical findings are used to identify suitable case studies. On the other, these are analysed in qualitative research using the “clues” from the empirical test. In turn, the qualitative results are used to reconsider the empirical model.

As pointed out by the two authors, this approach doesn’t reinvent the wheel; rather it is an adaptation of the qualitative study’s main research principles into the methodological context of the QCA. We select our cases on Schneider and Rohlfing’s approach, which can be summarized as follows.

The basic idea is to segment the cases into either typical or deviant groups, as is widely done in case studies following regression analysis. Typical cases are those predicted by the empirical model and are interpreted as being typical examples of what would occur according to the theory. The insight from these cases will improve the understanding and interpretation of the empirical model. The deviant cases are those that share a similar causal path as the typical ones, but the outcome does not occur. The main objective, then, is to understand the reasons for their deviance through an exploratory process. The two authors noted four main causes of deviance during the case analysis process. First, a condition may have been omitted from the original cross-case model. Second, qualitative findings might reveal a condition that applies only to a specific subset of the cases. Third, a deviant case may show that a contextual factor accounts for the deviance, such as a crisis or an accident. Lastly, the investigation of an outlier may reveal that the deviance is due to a measurement error when preparing the data, or it may come from using an indicator that is invalid for a particular case. Furthermore, the two authors stressed that the qualitative insights are valid only for the specific paths to which the typical and deviant cases belong, with respect to the QCA’s emphasis of causal complexity or equifinality.

These principles are illustrated with an x-y plot chart in Figure 22. It is then possible to select cases using graphical visualisation. Y represents the membership score to the outcome; X represents the membership score to the specific causal path under examination as discussed in chapter two. As was discussed, the main diagonal indicates where cases have similar membership scores in X and Y. As Ragin (2000) specifies, the more cases that are below the line and the larger the distance to the line, the less consistent is the causal path with a statement of sufficiency. Because the QCA approach used a fuzzy set membership, an enhanced version of the x-plot is present that also includes a vertical and horizontal line at the 0.5 set membership score for both the condition and the outcome. Therefore the main diagonal plus the vertical and horizontal lines divide the plot into six areas as follows.

Figure 22 fsQCA standard plot chart



Cases in zone 4 and 5 are called "irrelevant" cases: all of these have membership scores below the qualitative anchors in path X and outcome Y. They provide no insight on the causal path and the occurrence of the outcome.

Cases in zone 1 and 6 are *formally* consistent cases because these are above the line. The typical cases are the ones which have highest membership in both the related causal path (X) and the outcome (Y) so that in zone 1, here labelled "typical consistency" cases. The most typical cases are in the upper right far corner. They are typical cases related to consistency (theory). The objective of this analysis is to test the mechanism that links X to Y.

The cases in zone 6 are the ones which also show the outcome (Y) but have no membership in the X path. They are "outliers". It means that these cases are poorly explained by the solution or path under study, but they achieved the outcome. It means that the model couldn't explain them well; therefore, additional research investigation is needed with other explanatory variables to explain how they achieved the IA outcome.

Cases in zones 2 and 3 are *formally* inconsistent with the theory because these are below the line. These are seen as ambiguous or deviant cases in relation to consistency (X and Y membership). The most deviant cases are located in the far lower-right corner, in zone 3. These are puzzling because they have a membership in path X but they don't show the outcome in Y.

With the view to support our empirical model and the interpretation of the main paths, we select the most typical cases from zone 1 and the most deviant cases from zone 3. If more than one case is identified as the most "typical" or "deviant" in the related path, priority will be given to cases which already have been selected in another path under investigation in order to rationalize the number of cases to be compared. Attention is also paid to cases not covered by the empirical test, namely those that are outliers and irrelevant defined by the specific issues mentioned in the quantitative test.

Whenever possible, Schneider and Rohlfing recommend performing comparative case studies during the qualitative analysis since the insight found in one case can be strengthened when also found in another case; this is particularly true for the typical cases. With this in mind, it is important to compare two cases having the highest variation between them. In QCA terms, it means that one case should have high membership score in the causal path and the other case should have membership score only slightly above the qualitative anchor of O.5. This is what the two authors argue is the best matching pair.

Again, to rationalize the number of cases, we select typical cases if these are present in another path under investigation both in terms of IA adoption and professionalization. Otherwise, we select the best matching pair according to the above-mentioned recommendation. As for the deviant cases, the most deviant cases will be examined, since their number varied from none to a maximum of two in each related path pertaining to our model. Concerning the irrelevant cases in terms of IA professionalization, the control variable is used to select IA adopters that lack sustainable services in spite of their longevity.

3.3. Qualitative phase scope and cases selection

As mentioned earlier, the qualitative phase tends to focus on the main configurations and issues highlighted in the quantitative survey. Following the approach described above, we first classify cases as typical, deviant, outliers or irrelevant, according to the qualitative issue under investigation. In total we have 9 qualitative issues covering both IA adoption and IA professionalization as follows:

Issue 1. Institutional conditions as necessary conditions to adopt IA;

Issue 2. Coercive IA adoption with financial dependence and the presence of a board (minimal path);

Issue 3. Voluntary IA adoption with strong external control (minimal path);

Issue 4. IA adoption with low control;

Issue 5. Coercive IA adoption in case of low managerial autonomy: “the federal case”;

Issue 6. Unexplained IA adoption cases;

Issue 7. IA Professionalization with the most conditions;

Issue 8. IA Professionalization in spite of low managerial autonomy;

Issue 9. Unexplained IA professionalization cases.

The scope of each issue in terms of objectives and cases selection is described in the following section. Figure 23 represents the 9 issues with their respective selection of cases on the basis of their corresponding figures shown in the previous chapter. Following the approach described above, we first classify cases as most typical, deviant, outliers or irrelevant according to the qualitative issue under investigation, following the approach introduced above. Each case is then defined according to its corresponding ID shown in the data matrix of the empirical research in the previous chapter. The first line are cases that are selected as the most typical or deviant cases. The second line, when relevant, contains the best matching pairs or additional cases which have present elsewhere in the qualitative study. A sign + differentiates the best matching pairs. Note that issue 7 and 8 have the best matching pair measured by membership variation. In total we have 21 cases selected from the larger population, according to the above-mentioned procedure.

Since most cases were required to be anonymous, a label is given, which corresponds to the type of public entity and industry. Table 12 Qualitative data matrix" represents the cases overview with their respective pseudonym, qualitative issue number and configuration.

Figure 23 Cases studies overview

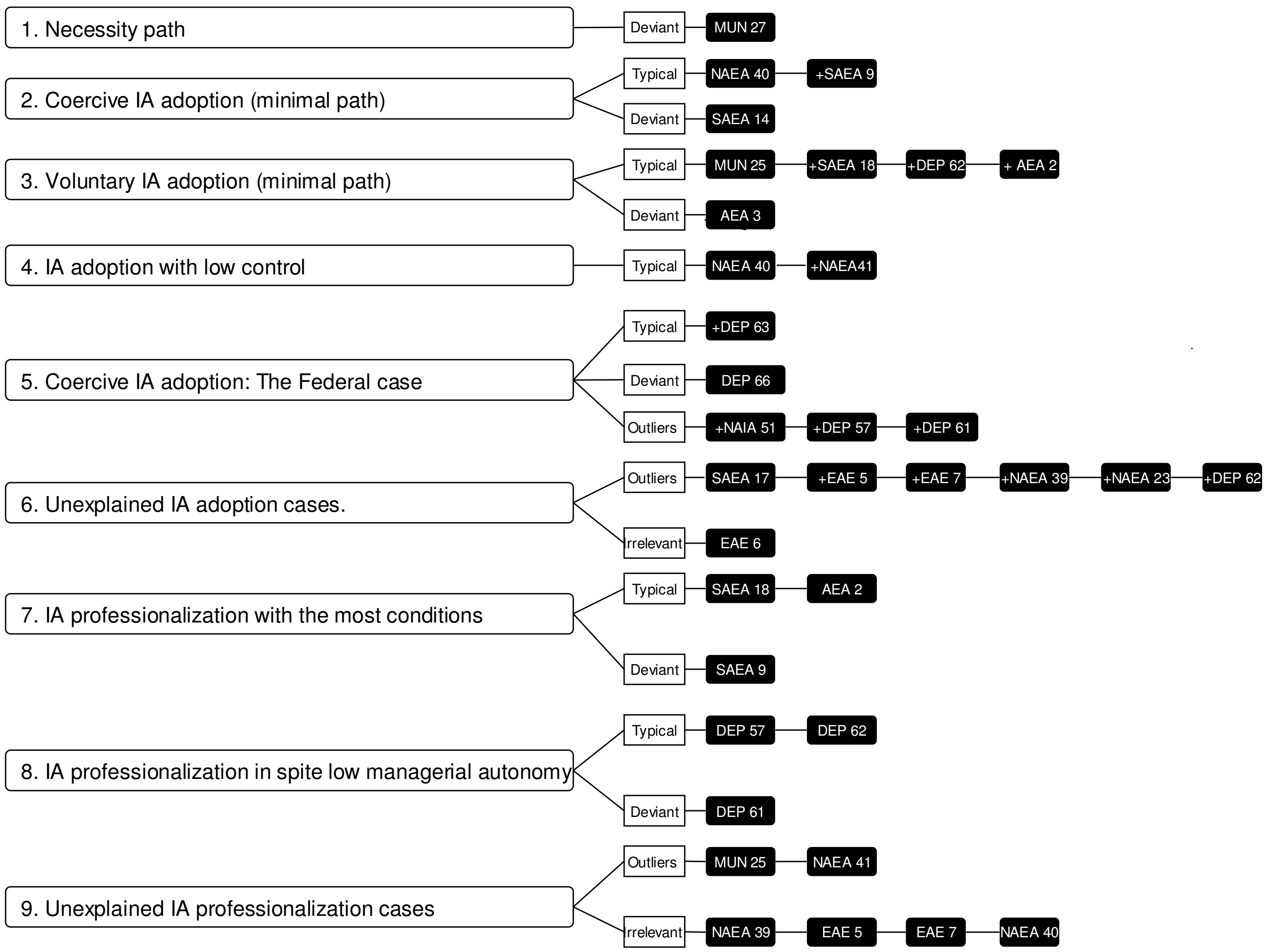


Table 12 Qualitative data matrix

ID	Entity	issue #	Government level	IA age	coercive	normative	managerial	funded	separate	control	adoption	maturity
AEA 2	National Transport Company	3, 7	F	12	0	1	0.7	0	1	1	1	0.67
AEA 3	Museum	3	F	/	0	1	0.95	0.32	1	0.95	0	0
AEA 5	Utilities Cooperative	6, 9	L	10	1	1	0.95	0	1	0.85	1	0.33
AEA 6	Hospital	6	R	18	1	1	0.95	0.05	1	0.95	0	0
AEA 7	Water Supply Company	6, 9	R	14	1	1	0.95	0	1	0.25	1	0.33
SAEA 9	Economic Expansion Company	2, 7	F	9	1	1	0.79	1	1	0.62	1	0.33
SAEA 14	Amenities Cooperative	2	L	/	1	0	0.79	0.82	1	0.85	0	0
SAEA 17	Hospice	6	L	1	0	1	0.47	0.05	1	0.05	1	0.33
SAEA 18	Regional Transport Company	3, 7	R	10	0	1	0.95	0.95	1	0.95	1	1
SAEA 23	Housing Cooperative	6		4	1	1	0.3	0.3	1	0.1	1	0.33
MUN 25	Provincial Municipality	3, 9	L	1	0	1	0.51	0.18	0	0.95	1	0.67
MUN 27	Local Municipality	1	L	3	0	0	0.27	0.12	0	0.05	1	0.33
NAEA 39	University	6, 9	R	12	0	1	0.4	0.92	1	0.25	1	0.33
NAEA 40	European Funds Agency	2, 4, 9	F	14	1	1	0.15	1	1	0.05	1	0.33
NAEA 41	Laboratory	4, 9	L	4	1	1	0.36	1	1	0.05	1	0.67
NAIA 51	Public Health Agency	5	F	3	1	1	0.36	0.86	0	0.05	1	0.67
DEP 57	Home Office	5, 8	F	3	1	1	0.19	1	0	0.95	1	0.67
DEP 61	Innovation Department	5, 8	F	8	1	1	0.12	1	0	0.62	1	0.33
DEP 62	Regional Department	3, 6, 8	F	11	0	1	0.5	1	0	0.6	1	0.67
DEP 63	Treasury	5	F	10	1	0	0.14	1	0	0.25	1	0.67
DEP 66	Welfare Department	5	F	/	1	0	0,1	1	0	0.6	0	0

F= federal; R=regional; L=local[127]

127 All types of public entities and level of government are represented. In terms of the type of public category, we have 5 AEA, 5 SAEA, 2 MUN , 3 NAEA , 1 NAIA, and 5 DEP. Concerning the government level, nine cases pertain to the federal level, six cases to the local level, and six cases are at the regional level.

3.4. Data collection and data analysis

When the 21 cases were defined according the above-mentioned methodology, semi-structured in-depth interviews (from 60 minutes to 3 hours, with an average of 2 hours, from June 2011 to August 2011) were conducted with the respondents of the quantitative survey. This maintained coherence and continuity with the quantitative data exposed in the previous chapter. Only two interlocutors held positions that were different from the respondents of the quantitative survey: at the hospital, the board secretary was our interviewee instead of the head of the qualitative program, and at the National Transport Company, the chief audit executive was our interviewee instead of being a senior internal auditor.

A standard interview guide has been developed based upon the complete dissertation theoretical framework for use in all cases as guiding questions while being flexible enough to adapt or focus into the qualitative issue under investigation or other issues that emerge during the course of each interview (semi-structured). The complete interview guide was as follows:

- What is the reason or the principal motivation which encouraged your entity to implement (or not) an IA activity?
- Do you have a regulation framework with respect to IA? What do you think about this framework?
- What is the profile of your CEO and how does he support IA? ;
- Who is your supervising public authority and how does it support IA?
- Up to what point is the presence of IA important with regard to the management of the financial incomes of your entity?
- What are the main external auditors of your organization and what is their perception on the utility of IA?
- Can you describe the degree of managerial autonomy of your entity and the impact of that autonomy on the implementation of an IA function within your entity?
- Is there any influence of your industry/other organizations or another contextual element on IA adoption in your entity?
- Can you describe the internal culture of your entity and its impact on IA?
- Tell the history of your IA program implementation, including: the creation date, favourable elements and obstacles to its implementation and its professionalization.
- How do you see the evolution of IA within your entity? Do you wish to professionalize it more? What would be its added-value/utility?

This interview guide was emailed to all participants in order to give them time to prepare their responses. In addition, we suggested they mention other points that also seemed important. We stressed that it is their testimony/personal opinion compared to these points which interested us; we kept the record of their name and entity confidential and used pseudonyms in the data analysis instead.

Following qualitative research methods (Kvale and Brinkman 2009, Miles and Huberman, 1994, Baud and Weber, 2003), all interviews were tape-recorded (except the one at the Treasury) and completely transcribed immediately after the interviews had taken place, augmented by numerous field notes containing a wide variety of our impressions during the interviews and archiving materials sent by the interviewees such as the internal audit charter, internal audits reports or information found by us on the entities' websites. All transcript notes have been restructured according to the interview guide to support the content analysis as suggested by the analytical protocol of Beaud and Weber (2003). First a within-case analysis has been performed to fully understand the cases individually, and the way it handles the issue under investigation. Second, some codifications have been put into sub-titles within the transcripts according to the theoretical concepts to help the interpretation and comparison of the cases. Third a cross-case analysis has been performed according to the qualitative issue under investigation to go beyond initial interpretations and to identify new findings based upon the applicability of the theoretical concepts. To increase the reliability of the qualitative analysis, we recalled the interviewees when the data were not clear or to get additional information to improve the validity of the data analysis and interpretation.

3.5. Qualitative findings with regard to IA adoption

Issue 1 "Institutional conditions as necessary conditions to adopt IA"

Confirming "hypothesis 1", the empirical test shows that institutional pressure is a necessary condition. However, one empirical case, the Local Municipality (MUN 27) contradicts this finding. The objective of this issue is to illustrate the extent to which institutional pressures, including mimetism, have an impact on IA adoption. This is done to complete the empirical observations, since mimetism was not included as a condition in the theoretical analysis framework. We asked all cases in our qualitative study, what have been the main driving forces to adopt an IA program? The objective was to test whether the institutional pressures constituted necessary conditions, including for the deviant case.

During the qualitative study, it was somewhat difficult to capture the original impetus or the main rationale underlying the idea of adopting an IA. In some cases, internal auditors were not present when their IA programs were established, while for other cases the establishment of IA was too long ago to remember exactly. Sometimes the person interviewed was not the right one to interview with regard to this issue. This was true in particular when the IA program was implemented at a public entity on a voluntary basis following a decision by a board or other executive agent. Sometimes it was possible to check, sometimes not. Consequently we suspect that, in the quantitative survey, some data errors occurred with respect to institutional pressures. For instance the qualitative survey revealed that the Regional Department was not implemented on a voluntary basis, as had been indicated by the quantitative survey; it was required by an explicit IA legal mandate included in its legal foundation, established in 1998. Other erroneous responses that occurred are reported below when relevant.

Concerning the deviant case, namely the Local Municipality, it clearly involved an erroneous declaration made by the respondent during the quantitative survey. Its IA program was a kind of pilot project executed by the top civil servant of the municipality. The respondent admitted during the interview that he learned about the concept through a training given by consultants on internal control and internal audit; then he wished to test the concept within the entity, making this case fall clearly into the group of cases involving a normative pressure alone.

The coercive pressure

The qualitative survey confirms that the institutional pressures are necessary conditions to prompt organisations to implement an IA program. Perhaps the most important is the coercive pressure. As stated the chief audit executive of the European Funds Agency, “If there were no EU requirements on IA, I am convinced we wouldn’t have any IA activity within our organisation”. Moreover, after 2002, we note that the IA legal mandates apply to a multitude of public entities at certain government levels, making the IA concept widespread. Before that, IA legal mandates were more often tied to individual public entities, through legal foundation acts, for instance, especially public entities created after 1995. This followed global public reforms that induced a decentralisation of public governance. Examples include the Regional Department in 1998 as seen above, the Public Health Agency in 2000, and the Economic Expansion Company in 1999.

Qualitative findings also reveal that the legal IA mandate sometimes comes after the IA program is implemented on a voluntary basis, and serves to better formalize the IA program. A clear example is the creation of the IA program at the Housing Cooperative. This resulted from the "Carolo Case" in 2005, where fraud was disclosed by financial inspectors[128]. An IA program was then clearly mandated as part of the performance contract for 2007-2012 between the agency and the oversight authority.

> "I was employed there in 2004. At that time, my role was not yet considered to be an internal auditor function but was called "financial inspector". […] The financial inspector function combined a support- and control-oriented mission. […] At that time, 70 entities were under the oversight authority of the agency. Then the "Carolo case" occurred following our audit. Awareness of this case created the "Big Bang" that professionalized this function. The minister said, "Oh oh, we have to do something". There was considerable political pressure and strong public opinion. They started to recruit and recruit, to be reassured. Subsequently, we separated support-oriented missions, which are always performed by financial inspectors, from audit missions, which are now performed by internal auditors. […] The agency committed to the implementation of an internal audit function with a deadline of 24 months as soon as the performance contract came into effect. We are now about a dozen internal auditors, and a director. " [Internal Auditor, SAEA 23 Housing Cooperative]

This is in fact the ideal situation, where both the normative and the coercive forces contribute to the institutionalization of the IA function within the organisation, for instance following a crisis or another informal demand to implement an IA program, in order to make official the IA function. However this intermingled relationship is sometimes confusing, leading to data errors in the quantitative survey; when filling out the questionnaire, most interviewees didn't recall the origin or misunderstood the institutional drivers. For instance, the Regional Transport Company declared in the quantitative survey that its IA program was implemented on a voluntary basis, even though it was clearly required in a performance contract. The interviewee explained this misunderstanding by the fact that the presence of an IA program was the result of a negotiation between the board members and the oversight authority, but the wish came from the board members; in his opinion, the normative pressure took precedence over the coercive pressure.

128 The "Affaire de la Carolo" burst into the open on September 5th, 2005 when one of the local political executives of the opposition made public a report of an audit of the Walloon social housing company called the" Carolorégienne". This company was founded in the municipality of Charleroi governed by the Socialist Party. This report highlighted corrupt practices in the management of the Carolorégienne involving both company executive managers and local socialist political executives in charge of the administration of the entity. This case led to the indictment and resignation of some of them. Furthermore, this case had a negative impact on the Socialist Party at other government levels in Belgium. That same year, for instance, saw the resignation of the Ministry-President of the Walloon region, which was related.

> “Was there a legal mandate to implement an IA function?” [Interviewer] “No. It was requested because of the performance contract at that time. It came from an internal management decision”. [CAE, Case SAEA 18 Regional Transport Company].

The coercive pressure also has an impact on IA professionalization, depending on its normative contents. We note that some IA requirements are very vague, with no mention of international IA standards or any focus on supervision of internal controls. Sometimes this created confusion between internal control or inspection and internal audit when the public entity tried to interpret and implement IA requirements in its administrative settings, including the EU first rule in 1995 mentioned earlier.

> “Typically, the EC rule required an internal audit function straightforwardly with only a slight difference, if my memory is correct, that we mixed internal control and internal auditing. They corrected that in the 2006 EC rule. ” [CAE, Case NAEA 40 European Funds Agency]

On the other hand, some rules are very normative, involving IIA standards and other international standards frameworks, such as COSO and INTOSAI, as well as the creation of an Audit Committee, such as mentioned by the federal IA royal decrees or European requirements, or by the recent performance contract of the Economic Expansion Company.

> ‘Why did you decide to implement IIA standards in your organization?” [Interviewer] “Because, quite simply, it was imposed by an EC rule, and that is still the case now. Meanwhile, the EC rule changed. It was the 1663/1995, which is the ancestor of the current rule, 80085/2006, but the IIA standards were already there in first rule. ” [CAE, Case NAEA 40 European Funds Agency]

Lastly, some IA adopters have also had to comply with other industry rules requiring them to be certified as EMAS, ISO 9001 or ISO 14001, such that internal audit activities also have to be present, in what is called “quality audit”. In that context, it is interesting to note that these entities have integrated these “quality audits” into their respective internal audit departments or have maintained the quality audit as a program separate from the internal audit department. In that context, we noted also confusion between internal audit and quality audit.

> “In 2007, after the merger, the internal audit was carried out in the quality department. Previously, the internal audit had been independent from the quality department; afterward it became, I want to say, dependent on the quality department. […] We usually carry out an internal audit according to the IIA standards; however, we also perform quality audits to satisfy the quality certifier. […] For the certifier, internal audit missions have too many figures. We therefore try to use a complementary approach. The ISO is limited to the procedures, but we, we go further. There is an approach based on risks. It is also difficult to make people understand that the internal audit should not be compared to a quality audit. They do not understand, for example, that it can

take one month whereas the audit quality takes only few hours; that the internal audit sticks to the risks. […] There was also some confusion between internal audit, quality, internal control, and compliance audits. Then the steering committee realized that things were not going well. In 2009, we again took the internal auditors from the quality department, putting an executive at top but making the executive subordinate to the steering committee." [CAE, Case AEA 7, Water Supply Company]

For some cases such as the Laboratory, the Amenities Cooperative and the Utilities Cooperative, they really thought that their quality department was an internal audit department, or they did not understand what the IIA standards are about. That lack of understanding is an additional indication that the IA adoption rate is overstated in the quantitative survey.

"Now I understand that you do not have an internal audit function although you stated on the questionnaire that you did have one" [Interviewer] "I instructed my colleague to fill your questionnaire. I had carefully said to him that our activity, is internal control, not internal audit. Apparently he misunderstood." [Head of Internal Control, Case SAEA 14, Amenities Cooperative]

"How did you create your internal audit function?" [Interviewer] "At that time of the merger with the two cooperatives, we needed a mobilizing project. […] And we therefore launched a quality project in 1997, not wanting to certify at the beginning. Then it was 2000, so we decided to be certified anyway. […] And so at the beginning of the certification we set up a team of internal auditors because the ISO standard required it." [Head of Quality Department/Human Resources, Case AEA 5, Utilities Cooperative]

"How did you create your internal audit function?" [Interviewer] "It was I, in 2004, who proposed carrying out accreditation 17025. At that time, there was an opportunity to align ourselves with the commercial context. […] We obtained our accreditation in 2008." "And the internal audit*?"* [Interviewer] "Yes, indeed, we have a quality manual in which there are a few lines on internal audits and procedures. I prepared a small flow chart, and I highlighted in orange those who carry out the internal audit missions. It is I, the sub-director and another executive. There are people who have a double role obviously. There are, well, six people who are qualified to do an internal audit." "Do you have an internal audit charter*?"* [Interviewer] "No." [CEO, Case NAEA 41, Laboratory]

The normative pressure

The normative pressure promoting the IA concept is more difficult to detect, as explained earlier, especially when the IA programs have been around for a long time. The following are examples of cases where the IA concept appeared in the public entity from a normative way. Sometimes it is clearly the coercive pressure which provided the normative "idea" to implement an IA program. For instance, the National Transport Company had implemented an IA program on a voluntary basis directly after the obligation by the law referred as "loi du 21 mars 1991 portant réforme de certaines entreprises publiques économiques 1991" to create an Audit

Committee within all national state-owned public companies. After all, public entities which have a board are more likely to be influenced by the IA concept because these will follow recommendations coming from codes of governance that recommend audit committee and IA programs alongside other best practices for governance. The IA "idea" also arose from direct experience or profile of board members. An example is the arrival of the new head of the board of administrators at the Hospital, who was a former external auditor of the Belgian Audit Court. On some boards, members also had seats on the boards of other public entities where IA was implemented. In these cases, the normative pressure overlapped somewhat with mimetism.

> "What was the motivation to create your internal audit function? Was there any legal mandate*?"* [Interviewer] "No. We had, in 2002, a new executive director, who launched the global strategic planning for the institution. This plan relates to many topics: all the functions of the hospital, medical and administrative affairs. There was also, the establishment for an internal audit. There was no particular reason. The new director came from the Audit Court. He is therefore an auditor (Laugh), and for this reason he wanted to set up that function. " [Board Secretary, Case AEA 6, Hospital]

IA programs also appeared as a result of networks and related distribution of documentation. Concerning the Provincial Municipality, the idea for implementing an IA program came from the middle management. Internal auditing was unknown before the distribution of a report published by the Council of Europe in 1999 on IA practices at the local and regional levels in European countries[129]. In the municipally, there was a strong confusion or overlap between accounting, other internal control practices and inspection because these were mostly performed or supervised by the same executive agents. The European report on internal auditing helped to clarify this overlap and related governance processes while it gave the main stimulus to implement an IA program within the municipality.

Other examples of voluntary implementation occurred when fraud was disclosed or when the risk of fraud was high. Executive agents, especially those sent by political parties, wished to implement an IA program in their entity to reassure both the political sphere and citizens. Also the idea of having an IA program appeared when the risk of operational and legal non-conformity was high, in particular in cases of expansion, through an increase of budget or scope of activities or through the merging of public entities. Examples include the Museum, the Water Supply Company and Hospice. Sometimes in this context, quality audits came first, while often confusion between internal audit and quality audit emerges. Furthermore, as

129 Council of Europe, Local and Regional Democracy, "Internal Audit at Local and Regional Level", report, 1999.

discussed later, a strong external control environment may produce the normative pressure itself to induce the public entity to adopt an IA function, directly by explicit support to the IA project, or indirectly, by creating a more constraining environment in which the entity operates.

> "I think that all cultural institutions for the moment are driven into a corner, that all institutions have grown up and that the governance rules are more and more strict. […] The requirements for the companies become so complex that it is absolutely necessary for us to establish this kind of system (Internal Audit) if we want to be certain that everyone comply with the same type of procedures. It is essential."[Financial director, Case AEA 3, Museum]
>
> External control is not enough to put the organisation under control, and with the merger of all entities, the risk of fraud and noncompliance is higher [Internal Auditor, Case SAEA 17, Hospice]"

With regard to IA professionalization, the normative pressure plays a facilitator role for IA professionalization, in particular through the direct involvement of top management in IA programs. All IA adopters in our cases stressed that to ensure the internal auditors legitimacy, credibility and transversally within the organisation, it is imperative for the top management to completely support IA programs. Cases in our study without this condition likely have no sustainable IA programs or are likely to be more isolated, performing narrower internal audits. Furthermore all cases with a strong external control environment (i.e. the Regional Transport Company, the Regional Department, the Home Office and the Public Health Agency also associated normative pressure with frequent recommendations by external auditors to further professionalize IA programs within the framework of certifications and assurance programs. This also helps to increase a culture of transparency, evaluation and accountability: the auditees accept better the internal audit missions.

Mimetism

Concerning mimetism, it is difficult to find clear illustrative facts because of the intermingled relations between the institutional pressures and the difficulty of recalling them. It is interesting, however, to note on the basis of survey statistics and comments from the cases, that a kind of mimetic pressure emerges resulting from a critical mass achieved in terms of IA programs adopted by public entities, with the following assumption: the more public entities there are that have implemented IA programs, the more is the peer pressure over other public entities to adopt them. This pressure is particularly effective when it pertains to the same government level where IA mandates are diffused simultaneously throughout a large number of entities. As noted by the interviewee of the Hospital who plans to adopt an IA program, its board members is now putting increasing pressure to implement an IA program. The context is that most agencies at the same governmental level have already adopted an IA program following the 2003 decree on control and transparency of public agencies of the French Community.

> "There is now strong pressure from the other administrators to set up an internal audit because the other public institutions have also put that in place throughout. That is why we have now accelerated the process. There are the administrators, who are external and appointed, in fact, by the political parties of the French Community. They also have a seat in other public institutions. Thus, here, we are now running the same race." [Board Secretary, Case AEA 6, Hospital]

Other examples include the federal decentralised agencies operating in the social security field which are not concerned with the IA federal royal decrees', although they feel an increasing implicit pressure to implement an IA program to avoid lagging behind other entities where IA is required, including their parent department (Sarens et al. 2010). Very soon, as noted by the interviewee of the University, "now, the research question is *not* to analyse organisations that have an IA program, but to examine entities which take the liberty *not* to have one". At the local level, the diffusion of internal auditing seems to have not yet attained the critical mass needed to generate peer pressure on the other agencies or municipalities. It is then not surprising that the confusion between IA and internal control or quality audits during our research investigation occurs the most at the local level. Last, as seen in the theoretical framework with regard to mimetic pressure, mimetism is also found at an upper institutional level, where experts write the legal IA mandates. These likely are to replicate normative public governance principles and models discussed at the macro-level through national and international networks (Pollitt and Bouckaert, 2004). In other words, it is not a coincidence that recent legislation put IA program requirements directly into the formal governance structure of the entities, including the Regional Department (1998), the Public Health Agency (2000) and the Economic Expansion Company (1998).

Concerning the impact of mimetism on IA professionalization, most of our interviewees were very active in networking as soon as the IA project came to light. This was especially true between internal auditors working at the same government level through their respective networks rather than through their specific industry. However, a few cases, including the University and the Hospital, started to network with internal auditors working in the same industry, but this has been exceptional until now. They argued that it is easier to copy methodologies and tools where similar risks are shared. One example is IA practices in library management being copied by the University as a result of contact networking amongst internal auditors performing audits in universities. The IIA BEL is also a good place to exchange and copy practices, especially through its specific public sector working group. However, its location in Brussels prevents some internal auditors who work far from the city from regularly attending meetings with the institution.

Issue 2 "Coercive IA adoption with financial dependence and the presence of a board"

The empirical test shows that the combination of financial dependence coupled with structural autonomy is a sufficient minimal path to ensure IA adoption in the case of coercive pressure; this empirical finding refines the "financial dependence" hypothesis; in the theoretical framework, only the financial condition was seen as a sufficient condition to explain the entity's responsiveness to the financial donator's IA requirements.

The qualitative study investigates the reasons why the financial dependence condition should be associated with the presence of a board to increase the explanatory power of this path. We interviewed two typical cases, namely the European Funds Agency (NAEA 40) and the Economic Expansion Company (SAEA 9), and one deviant case, the Amenities Cooperative (SAEA 14).

Financial dependence

Qualitative investigation discovers that the rationale for adopting an IA program in the context of financial dependence when IA is required depends more on the threat of budgets being cut than it does on the proportion of financial dependence as specified in the quantitative variable operationalizing the financial dependence condition. In other words, the coercive pressure put by a financial donator that forces a public entity to adopt an IA program will have different impacts depending on whether there is a *threat* to the organization of losing financial funds. The qualitative study noted that public entities having a financial dependence (mainly subsidiaries, funds or projects) are likely to have a more constraining coercive pressure than are departments or agencies which receive mainly recurrent "owed cash flow" such as financial allowance arising directly from a line item in the government budget. The agency operating in European programs is a typical example of this context, receiving large European funds to enable the agency to fund other entities operating in the same field. Most of the agency's administrative structure and practices fit European legal requirements, including the IA program; furthermore, the internal control reporting documents are constructed directly upon European framework models and related control priorities mentioned in the European rule.

> “Had it not been required by European rule, I believe that there would never have been internal auditing here. Had the top management not emphasized that function, this would have been the object of remarks and this would have put the Agreement into danger. Or, at least, this would have created useless problems. […] It was necessary for that function (Internal Auditing) to be verifiable by the external audit. […] Since 2008 or 2009, we had a monitoring tool, a kind of scorecard within the scorecard of the CEO. The CEO decided to follow-up on this function (Internal Auditing) on a permanent basis along with other activities he wanted to carry out in his own monitoring instrument. […] Actually, the internal audit is one of the four actions of the permanent follow-up. It is this structure that is found in Appendix 1 of this European rule. (She show the Appendix 1) Here, they follow the four topics mentioned in the European rule. You see, we read this appendix very well, and we noted that the internal audit is item 4B of this appendix.” [CAE, Case NAEA 40, European Funds Agency]

On the other hand, for departments or public entities which are financially dependent in the same way, this threat (in the form here of a budget cut) is rather “theoretical” whenever the essential share of the financing goes to current expenditure where the subsidizing authority is not at liberty to remove (e.g., the wages of the statutory civil servants).

As for the Economic Expansion Company, it was also mandated to implement an IA program by the federal oversight authority. This had the goal of reducing the quantity of external audits while safeguarding the guarantee that the public money is effectively and efficiently spent in the projects the public company managed. Although this case is not as typical as the first one in terms of “coercive isomorphism”, the coercive constraint to respond to IA requirements is high because otherwise the public company would lose its legitimacy, and therefore also lose its decentralization power. Note that this entity was previously attached to the supervising department.

The discourse with regard to financial dependence was however very different at departmental or at some agency levels where interviewees of these cases smiled when we asked them to what extent IA is important with regard to their financial income which comes mostly from government. As noted by most interviewees in this context, sanctions to eliminate that financial allowance are rare. This is particularly true for federal departments where IA is compulsory: some have adopted it while others have not. In that context, financial dependence is a characteristic (all departments are financially dependent) rather than a determinant (and so this is a trivial condition in the sense of QCA). In other words, in this context, the determinant(s) to motivate organisations to adopt IA lies elsewhere but certainly not because of the financial dependence condition.

The presence of a board

That is why empirical findings show that to instil mandatory IA, financial dependence clearly should be coupled with the presence of a board in the public context. As a condition, the presence of a board means various things in terms of explanatory force to contribute to IA adoption when IA is required. First, the presence of a board probably means that the related entity has a legal personality distinctive from government while usually it has more market competitiveness and technical tasks, involving more competition and more technical rules than ministries. In other words, their operational environment is more constraining while they have more managerial autonomy as already stressed in the dissertation theoretical framework. In this qualitative issue context, the board is playing a positive role on IA adoption *as a pressure*, not as a facilitator condition. Second, a board also implies a normative driving force itself, as seen above through mimetism, to follow codes of governance, or through the profiles of board members. Third, a board also means more managerial autonomy or capacity, as confirmed by qualitative evidence. This is in contrast with departments or other kinds of public entities whose internal administrative functioning depends directly on government approval.

> , "The political crisis at the federal level does not impact our internal functioning as it impacts federal departments; we do not need the government's approval to manage our internal staff, that's why we have a board." [CAE, Case NAEA 40, European Funds Agency]

The deviant case

Concerning the deviant case, it has been required to implement internal audit activities within the framework of assurance certifications due to European programs and technical rules related to specific industry, but these rules do not specifically require an IA program. So its position on the graphic as a deviant case is expected since this case is well disposed towards the adoption of IA programs. Some cases already include both quality assurance and IA programs, such as the Water Supply Company, the Regional Transport Company and the Public Health Agency.

Issue 3 "Voluntary IA adoption in the case of strong external control"

The empirical test shows that the normative pressure alone combined with a strong external control is a minimal sufficient path to explain IA adoption. So what is the link between them that inclines public entities to adopt an IA program? This study encompasses one typical case, namely the Provincial Municipality (MUN 25) and three other cases with the same combination: the Regional Transport Company (SAEA 18), the National Transport Company (AEA 2), and the Regional Department (DEP 62). They have been selected here because these are examined elsewhere in the qualitative phase. The Museum (AEA 3) is a deviant case.

Qualitative evidence distinguished different types of influence that a strong external control context may exert on the normative pressure to adopt an IA program on a voluntary basis.

Official support

This context may directly influence an IA project through direct and official normative support by external auditors, as is the case with the Provincial Municipality. In this context, the IA project came from the middle management line, as seen earlier. Official support by the Audit Court and later by the supervising authority was crucial in getting the municipal hierarchy to accept the IA project and the way it has been structurally attached since top key executive functions were involved in the former administrative routine. To explain, the head of the bookkeeping department was also the head of the internal control program where the IA project proposal emerged. The staff in charge of the internal control program communicated the IA project proposal to the municipal hierarchy including political executives, by stressing that the IA function should be attached under the political executive board, not under the management board or under the head of bookkeeping and internal control programs as required by the latter.

Specific context

On the other hand, a strong external control environment associated with sanctions may be a specific context that creates the need to adopt an IA program with the view to ensure legal conformity. The Museum is a clear illustrative example in this respect. The Museum has external audits every two up to five months while sanctions are important in case of bad performance such as budget cuts or bad publicity.

> As its interviewee said, "*this cultural institution is facing an increasing number of legal requirements imposed by EU programs and the supervising authority, as well by private sector corporate rules because we are also a company. We need to make sure the Museum complies since the risk of not complying is rising."* [Financial director, Case AEA 3, Museum)

It is a deviant case because although the IA program is needed, it is not yet implemented because of a lack of means. The interviewee noted that his Museum and other cultural institutions are legally required to have the same level of administrative sophistication as big businesses companies: some requirements are perceived as out of proportion because these entities work in the nonprofit sector or are too small size. It is also interesting to note that the IA idea came from the Museum's department of finance and bookkeeping. If it is established, internal audit missions will be conducted by agents of this department; it will be likely a hybrid function attached to the financial department.

Implicit coercive pressure

Furthermore, external control can be an implicit coercive pressure to prompt the entity to adopt an IA activity on a voluntary basis. This is the case with the National and Regional Transport Companies. Both interviewees confirmed that it is important for their company to comply with good governance principles that support IA programs as well, irrespective of their IA explicit requirements. Because of its legal status, the regional and national companies seem very eager to look as professional and reliable both for the external auditors and for the oversight authority. As stressed several times by the interviewee of the regional company, as other interviewees working in decentralized agencies have stressed:

> "We are not an administration here, we are a company!" [CAE, SAEA 18, Regional Transport Company]

Additional finding

Lastly, although the case of the Economic Expansion Company is not included in this path, it is reported here since it is a good illustration for the last type of influence with respect to external control. Moreover the IA program in this case was first initiated by a normative pressure, before being legitimized by coercive pressures. Both the federal company and its supervising authority wanted to have an IA program with a view to reducing external audits carried out by the supervising authority on the federal public company projects funded by that same supervising authority. The adoption of a reliable IA program will reduce external control activities created by single audit opportunities. Both sides recognised that this duplication of work is not effective. So, they decided to adopt an internal audit function, according to IIA standards, and hired qualified internal auditors. These requirements have been outlined first in the legal foundation act of the federal public company, and then more precisely in its most recent performance contracts.

Issue 4 "IA adoption in the case of low external control"

The main issue is to clarify the impact of low control on IA adoption, in particular in the respective complex path 4, because low control contradicts the expected individual effect of strong external control that is confirmed in all other paths and in the theoretical framework.

Two typical cases are selected because these are also present elsewhere in the qualitative study, namely the Laboratory (NAEA 41) and the European Funds Agency (NEAE 40). There is no deviant case in the path. Furthermore, because some of the outliers in issue 6 also have a low external control environment in their respective combinations, we report these here, rather than in issue 6.

Impact of small size

The qualitative study revealed that the Laboratory implemented assurance certification programs (ISO 17025) because it was required to do so by local authorities in Brussels. The interviewee of the Laboratory misunderstood the difference between quality audits and internal auditing, making this case fall clearly into the group of irrelevant cases. However, it is interesting to bring here some qualitative evidence to further feed our discussion with this issue. The interviewee explained that administrative management, including bookkeeping, is completely outsourced to a public accountant since the agency is very small (i.e., 19 employees). Some external audits have been done twice a year only on accountability and compliance in order to reassure the board members composed by local authorities, and no more audits are needed. High control systems such as internal audit or external audits on administrative functions are not seen by this case as necessary because of size

> "I understand that in public entities such as the department in Brussels, other managerial issues such as mobility, human resource management, and management efficiency merit auditing, because it is a real machine there. But here, we are too small." [CEO, Case NAEA 41, Laboratory] .

In case of low control

As for the outliers taken from issue 6, the Housing Cooperative has implemented an IA program following disclosure of fraud, including "Affaire de la Carolo" in 2005. The IA program has also been created in the Hospice case following the discovery of fraud and because external control was not sufficient to control all risks.

> "The idea was first to create this function, especially to reduce, as much as possible, the risk of fraud with public money. We are a large entity, with 3000 people and a large budget. […] They (board administrators) need to be

> reassured against fraud and breaches especially in the general climate of financial scandals in local cooperatives. […] External control is primarily downstream, once everything has already started, for example the instructions. Besides, our colleague who is an external auditor, comes only once or twice a year just to check the books; essentially the operational budget from the BMF (Budget of Financial Means). It is not sufficient." [CAE, Case SAEA 17, Hospice]

As for the University, the rationale to adopt its IA program was not known because the interviewee was recently hired, long after the IA program was implemented, in 1998. According to his opinion, external and internal auditors do not share risks with the same view or importance, so that internal audit is needed anyway.

> The external auditor is in search of information. They come here and say: "Sir, then, what happens here at the university? And your reports? What are you working on? Is everything going well?" That is all, I want to say. We discuss, we do not work hand-in-hand. Inefficiency, for example, does not interest them. We are not interested in risk in the same way. I think internal auditing goes beyond the reliability of financial accounts. Rather, we want to show to the outside world that we control the organization." [CAE, Case NAEA 39, University]

As for the European Funds Agency, we already know that the main pressure comes from the European institutions and that the survey response with regard to low control applied only to Belgian public control, not to the European control initiatives which are numerous. Therefore, this case is not appropriate here.

To summarize, the cases mainly demonstrated that external audits performed by public agents do not provide enough assurance or do not share the same risks to make sure the organisation remains under control; therefore, the absence or low control becomes a clear pressure to adopt an IA program in this context.

Issue 5 "Coercive IA adoption: the Federal case"

In the case of coercive pressure, some departments and decentralized internal agencies with low managerial autonomy show ambiguous results, which means that other explanations are needed, or that some conditions are irrelevant. Federal entities under the IA royal decrees of 2007 are representative of this situation. So, what are the main drivers that are adopted or not in this context? We already know that financial dependence is a trivial condition in departments and related agencies.

The typical federal case is the Treasury (DEP 63). We decided to include the federal outliers as well: the Home Office (DEP57), the Public Health Agency (NAIA 51) and the Innovation Department (DEP61). The Welfare Department (DEP 66) is the sole deviant case, but it is completed by qualitative evidences arising from our 2008 qualitative survey that focused on the federal issue as well. The survey report has been communicated through a colloquium on Belgian federal reforms and is in Appendix 0.

The IA adoption rate has increased since the final IA Royal Decree (2007): 10 of 23 entities have now adopted an IA program. But this result remains unsatisfactory[130]. The qualitative study shows clearly that there are other factors that may explain the presence or absence of IA programs.

IA programs before the IA royal decrees

Some of the federal entities adopted an IA program originally because it was already there before the royal decrees. For instance the Treasury had already two IA programs in operational units since the 1990s. The first one was created in 1991 within the taxing operational unit, following a decree[131]. The other IA program was officially mandated in 2000 within the operational unit called the "administration of the treasury" following a decree[132] as well, but internal audit missions had already been conducted since 1995, following a financial scandal that resulted from a lack of financial expertise or negligence on the part of the related department and executive minister. However, this case remains ambiguous: a transversal IA program is foreseen in the 2009 organizational chart arising from the internal reform of the entity (called "Coperfin") to comply with the overall federal reform ideas including the decrees, but is not yet implemented. No clear reasons were given during the interview to explain this gap, except the unstable federal context. This is discussed below. We suspect that the complexity of the organisation is also likely to make any substantial administrative change very difficult; the Treasury is one of the oldest departments and the biggest (with approximately 30,000 staff).

Concerning the Public Health Agency, its IA program and IA committee were enacted in its legal foundation act[133] in 2000, and were officially created in 2007. Notwithstanding this late start, a large number of assurance programs have been carried out since the creation of the agency, resulting from European and industry requirements. With the view to implementing the official IA program, pilot transversal audits have been carried out through a business process reengineering (BPR).[134] It

130 See Cour des Comptes, *Les Cahiers d'observations annuels*, from 2007.
131 See "Arrêté royal modifiant l'arrêté royal du 29 octobre 1971 fixant le règlement organique du Ministère des Finances , ainsi que les dispositions particulières y assurant l'exécution du Statut des agents de l'Etat" . The decree has been updated by A.R. 13.02.1996 – M.B. 13.03.1996
132 See "Arrêté royal du 12 janvier 2000 modifiant l'arrêté royal du 29 octobre 1971 fixant le règlement organique du Ministère des Finances, ainsi que les dispositions particulières y assurant l'exécution du Statut des agents de l'Etat " (M.B.13.05.2000).
133 See "A.R. 04. 02. 2000 (M.B. 14.02.2000)".
134 BPR methods were used at that time within the context of the Copernicus reform as a global federal managerial device to manage administrative structural change within departments.

was not a problem to recruit internally. IA expertise was already in-house due to the specifics within the industry while the staff was used to carry out audits or to be audited. Adding to this, external control is high in this context. In this respect, in the survey the agency declared that the external control was low because the respondent misunderstood the question. In this light, it is clear that this case is not an outsider because a strong control environment plays a crucial role for IA outcomes of this agency as well. Furthermore, though the need for IA was obvious and explicit in this agency, we suspect that the decrees gave the agency IA missions (which are mainly technical or operational due to certification programs), a move towards more transversal and administrative concerns. From another source, it is interesting to note that its supervising or parent department does not yet have an implemented IA program, although it falls under the decrees as well. According to the interviewee of the agency, it is because the tasks are different.

> "We are not an administration, we are closer to the market; we execute the policies. The Department makes the policies." [CAE, Case NAIA 51, Public Health Agency]

We expect that some tasks are more suitable for internal audit missions than others, but this needs further scientific study.

IA programs following the IA royal decrees

The Home Office and the Innovation Department have implemented an IA program in the context of the Copernicus reform and related IA royal decrees. Clearly the top civil servant of the Home Office was also demanding IA, irrespective of the decrees. First, she had been in charge of risk management in another public entity before being recruited for this function; from her past experience, it is clear that IA matters to her. Second, she needs to be reassured that her organisation is under control and efficient. Its sector is very politically sensitive, implying large missions and a lot of controls of different kinds. IA missions are seen to complement ordinary public audits that are perceived as too procedural or too broad, such as the thematic audits carried out by the Audit Court. Third, she showed an explicit professional ambition to be a model when managing her mandate.

> "It is her mandate. Initially, because the Copernicus program required it, and then, when she does do something, she wants it to be well done, she wants her mandate to be exemplary. And to have a good outcome. Because she says it is her money, her budget. That should return well." [CAE, Case DEP 57, Home Office]

Besides, the Home Office's staff was prepared to carry out internal audits mission or to be audited.

> As the interviewee said, "the internal culture is ready because we worked on this since 2002 with management plans, Key Performance Indicators (KPI), Balanced Scorecards (BSC) and so on. So we were prepared to move up." [CAE, Case DEP 57, Home Office]

Some pilot projects, including BPR projects, were implemented before the official IA program to clarify the risks and the scope of the IA program. Then the official IA program was created in 2007, through first by hiring from within, then by hiring auditors from outside. In this case, factors beyond coercive pressure, such as individual characteristics, internal culture and the political sensitivity associated with high control all contribute to explain IA adoption.

The Innovation Department was one of few federal cases which complied directly with the first IA royal decree (2002). At the same time EC programs required public entities working in specific European programs, including this department, to certify annual accounts by internal auditors in order to get their European funds. It is also one of the few federal cases to have recruited an internal auditor who had senior and qualified IA experience, including financial certification to execute the European requirements. The IA program is managed by only one internal auditor, while its audits cover both the department and about fifteen external entities operating under the umbrella of the Department. This new European requirement likely did reinforce the pressure on its top management to respond to the first IA royal decree. The interviewee of this case stressed that neither the top executive civil servant, nor, the management committee, were demanding to have an IA program with the view of improving the overall performance of the entity.

Factors to explain IA nonadoption

With regard to the deviant case, the Welfare Department plans to adopt an IA program shared with other departments operating in the same sphere, but the first priority has been to adopt programs that increase the sophistication and formalization of its internal controls.

Policial crisis, unstable IA reform and the reluctance of top civil servant

However, the IA project has been frozen for two reasons. First the recent political crisis (2007– 2011) prevented federal institutions from having their own executive government since 2010. As results, official recruitment, promotions and other human and financial resources upon which departments and related internal agencies depend are blocked because they needed the executive government approval on these issues. Second, the very recent proposal (July 2011) of the federal audit committee to centralize all internal audit activities into one external service discourages further departmental initiative to develop their own IA program, while contravening and then discrediting the IA royal decrees. The interviewee also acknowledged that the IA program could have been implemented earlier, but the previous top civil servant opposed the entire Copernicus reform and its related managerial tools, including IA requirements. This case gives clear indication again that individual features, contextual elements and internal culture are all important factors in explaining administrative choice with regard to IA programs.

Uncertain future

Above all, irrespective of the political crisis, most interviewees of the federal cases stress that the overall federal institutional context is too unstable to successfully encourage less-motivated departments to adopt IA programs. First, federal royal decrees on IA mandates have changed several times in less than 5 years; departments and some agencies from 2002 were required to implement an IA committee individually. Then in 2007, public entities were required to abolish them and replacing them with a central audit committee for all departments and agencies, which was to be attached under the Council of Ministers. Then the political crisis since 2007 has given rise to a very uncertain future for the federal activities, especially the more "fragile" departments that are likely to be restructured or regionalised.

Our previous survey highlighted three other main reasons why most departments failed to adopt IA programs even after the IA royal decrees: first, the reform was perceived as incomplete; second, there was a lack of political support from the beginning; third, the culture of the federal administration was not ready. Below is a summary of these points; the entire report is in Appendix 0.

Incomplete reform

First, the infrastructure upon which IA programs depend in order to function adequately remains incomplete. As seen above, the keystone organization, the Federal Audit Committee, was absent for a long period. This allowed top civil servants to justify their inertia with regard to the IA program, since all the necessary infrastructure for IA required by the royal decrees was not created. Furthermore, any sanction or direct incentive has been clearly foreseen in all IA royal decrees and related programs. Neither is there a clear formal career or promotion path for this new function in the official federal human resource policy framework. So, there is a kind of discrediting of this new function as perceived by individuals, both internally and externally. In addition, the decrees, by requiring IA programs, created an additional control layer on the public control chain without first establishing a more global framework to better regulate the interaction between internal and external audits. This creates an ambiguous and uncomfortable situation arising from the confusion, duplication or concurrence between internal and external auditors. Furthermore, the 2007 IA royal decrees have reinforced this ambiguity by the creation of the central Audit Committee. These gaps and the resulting confusion create an overall feeling that the decrees are too dogmatic, carrying out a political vision rather than a pragmatic application. Most of the cases acknowledged, however, that the decrees are a good theoretical basis. But, they also said they should be further detailed in administrative application, and have more synergies with key actors of the reform, taking into account administrative needs from the departments. In other words, the coercive pressure is seen as much too top-down.

Lack of political support

The second reason for failure was the lack of political enthusiasm and commitment to the federal IA decrees from the beginning. This was undoubtedly reflected in the departments' perception of the legitimacy of IA programs. The current political crisis won't be of much help. The horizontal departments that have to support the overall Copernicus reform implementation are also not very convincing in the eyes of the other departments: none of them has implemented an IA program as yet. Mimetism, usually referred to as a helpful force, here is operating in reverse, hindering rather than helping the implementation of IA programs.

Internal culture not ready

The third reason for failure is that, for the majority of the departments, the internal culture is not yet prepared; there is a lack of a culture of evaluation and accountability in the overall federal administration. This creates a negative perception of the internal audit. As seen earlier, the added value is not clearly perceived because internal control devices are not sufficiently developed or formalized. It is a classic chicken and egg story. Therefore the schedule of implementation foreseen in the IA decrees is not realistic; time is needed to take into account the scope of the change.

Issue 6 "Unexplained IA adoption cases"

The principal research question here is to find out what are the main determinants which lead to IA adoption for the organisations which were not covered by the scope of the solution formula. The typical outlier is taken from the model, namely the local Hospice (SAEA 17) and other cases examined elsewhere, namely the local Utilities Cooperative (EAE 5), the Water Supply Company (EAE 7), the University (NAEA 39), the Housing Cooperative (NAEA 23), the Regional Department (DEP 62) and the Regional Transport Company (SAEA 18). The qualitative study also investigated the irrelevant case, namely the Hospital (AEA 6) because the data matrix and the Truth Table showed that this case is strongly contradictory case in the sense that it includes most conditions that induce the organisation to adopt an IA program as demonstrated by other cases, yet it has no IA program.

Outliers because of data errors

The Utilities Cooperative, the regional Regional Transport Company company and the Regional Department are outliers because of data errors. The cooperative mistook quality audits for IA programs while the public company and the Regional Department declared that they had IA programs on a voluntary basis while these were actually legally required.

Outliers because of low external control

Note that the three remaining outliers, namely the Hospice, the University and the Housing Cooperative have a feature in common: a context of low external control. These cases showed evidence that their IA programs are likely to be a response to control gaps, so that these are reported in issue 4.

Irrelevant case because of data error

With regard to the irrelevant case of the Hospital, the interviewee said that he was planning to implement an IA program upon request of the new board director, who was a former external auditor from the Belgian Audit Court as seen in issue 1. So this case fits our theoretical framework well, especially with the normative and the mimetism pressures. However there is no coercive pressure contrary to what the case declared in the quantitative survey, so that this is not an irrelevant case, but a deviant case, which fits the normative path combined with a strong external control context, but the IA program is still at project phase. In other words, this case includes all the preconditions to get an internal audit program, according to our model.

3.6. Qualitative findings with regard to IA professionalization

Issue 7 "Professionalization of IA programs with the most conditions"

With regard to IA professionalization, the more determinants included in the path, the more professional are the IA programs, provided there is a strong external control environment. The following solution consists of complex Path 1 and Path 2 in the case of IA professionalization and includes all the highest professional IA programs and a deviant case. Typical cases are taken based on the best matching formula, namely the Regional Transport Company (SAEA 18) for the most typical one and the National Transport Company (AEA 2) for the least typical. The deviant case is the Economic Expansion Company (SAEA 9). However, after the interview with the National Transport Company that was not "rich" enough with respect to our scope of analysis, we decide to focus only on the Regional Transport Company and the deviant case. These cases have implemented the IA program more or less at the same period; they have the same path. So, what is the explanation of the deviant case?

Similarities

The two cases confirmed that a good mixture is needed of constraints and performance managerial capacity to respond to institutional pressures. Both cases are very dependent on government funds. There is also a strong expectation by the supervising authority that these entities are to be reliable to get public money, and must have controls, sanctions and incentives. All these are specified in their performance contracts. IA programs are then seen as a stamp of both professionalism and reliability that will increase the legitimacy of the organisation, not only directly in the eyes of the supervising authority but also in the view of external auditors and other stakeholders.

Second, both cases compare their human resource management flexibility to the private sector. As the interviewee of the transport company noted:

> "We are not an administration, with different statutes, training and promotion rules and incentives. It is less complicated here. We recruit directly; we have the same treatment for all. Except for the salary, but this can be adapted to a certain extent." [CAE, Case SAEA 18, Regional Transport Company]

It is then easier to recruit qualified persons, not only for IA programs, but also for other middle management functions. This creates a more normative conscientiousness. As the interviewee of the deviant case said:

> "Our company was certified ISO 1401, now is certified ISO 9001and then EMAS; the dynamic (of improvement) comes from the bottom, not from the top". [Internal Auditor, Case SAEA 9, Economic Expansion Company]

We note this perception also in other cases with high managerial flexibility, including in some municipalities. Also the cases pointed out that managerial flexibility also provides more efficient modern tools such as ERP systems, which facilitate IA missions because the information flow is higher and formalised.

In both cases external control is working here as a facilitator of IA professionalization since external auditors, through quality or financial certifications or more regular external audits, make these recommendations to improve the quality of the IA program. Also this serves as a pressure since through their opinions, the IA has to be reliable, professional, and also able to prompt single audit opportunities. The financial dependency here reinforces the legitimacy quest with regard to these controls.

So these elements confirm the empirical trends and hypotheses, in particular the NPM hypothesis. Furthermore, both cases pointed out that the board is demanding IA programs. Nevertheless, we strongly believe that it is because of this determinant that the Economic Expansion Company appeared as a deviant case. The following is an exploratory explanation which merits further scientific investigation to test its validity. More precisely, if the board is to be the main principal of the IA program (alone or through an IA committee), the extent to which its members are implicated in executive functions in the management of the entity seems to have a major influence on IA professionalization, as explained below.

Main difference

In the case of the Regional Transport Company, the IA program has in fact two "principals": the audit committee (main principal) which is a mix of top managers and board administrators, and the management committee under which the internal audit function is structurally attached. Moreover, the CEO is also an administrator of the board. Therefore, the management is highly implicated in the programmation and reporting lines of the IA program. The independence is maintained through a good equilibrium of interests in the audit committee.

As for the deviant case (which is deviant because it has the same path as the regional company but its IA program is unsustainable), the audit committee is the principal of the IA program too, but it is composed only of board administrators. Moreover, the administrators of this company do not have any executive administrative functions. In that context, the management does not see himself here as a partner, but as an auditee in the audit programmation. Also it is clear that the IA function is rather considered by the top managers as an additional control layer or administrative burden since their priority/risk concerns are probably not the same as the ones shared by the board. The organisational flow chart clearly illustrates this situation: the IA department is directly attached to the board, not the management committee. In that context, the interviewee of the agency said:

> "Audit recommendations are not taken seriously by top management. Top managers do not give complete support on our missions; the situation is getting worse." [Internal Auditor, Case SAEA 9, Economic Expansion Company]

These cases confirmed that managerial involvement is needed to ensure IA professionalization, whether it comes from a board, or a management committee, or the audit committee, provided management is represented during the audit programmation. In other words, it is not the board which provides such a positive role for IA professionalization but the way executive top managers are implicated in the IA program. We also found such IA governance structure in local agencies where fraud is detected. In this context, internal audit is more seen as an inspection program than as an improvement program.

So the presence of a board is an important determinant for IA adoption, as seen above. But it is a less important determinant for its professionalization, except that it likely provides more stability and a more normative environment in general and makes it more suitable to apply IIA standards in terms of governance. But the involvement of executives in the audit program seems to be more crucial whatever the type of public entity, with or without a board.

Issue 8 "IA professionalization in spite low managerial autonomy"

Issue 8 shows a kind of opposite path to the previous issue: despite the very low managerial autonomy, some IA programs are sustainable, while others are not. Note also that none of these IA programs have achieved a professional level as the ones pertaining to the cases in the previous issue. The main issue here is to discover what the main drivers of IA professionalization are since the empirical model shows contradictory results.

Typical cases are taken according to the best matching procedure, namely the Home Office (DEP 57) and the Regional Department (DEP 62). The deviant case is the Innovation Department (DEP 61). Note that for the federal cases, it is the next part of the story seen in issue 4. That is why we have also included the Public Health Agency and the Treasury (DEP 63) considered as outliers in the case of IA professionalization. Note that, contrary to what it had declared in the empirical research, the Public Health Agency is considered in the qualitative study as a typical case instead because it has a strong external control environment.

Positive drivers

We note common features between the Home Office and the federal agency. First, both have a strong external control environment, which plays the same facilitator role for IA professionalization as seen in issue 7. Second, both cases have an internal control environment favourable to being audited, arising from certifications, assurance programs, internal control management tools, and documented procedures. Third, the top management in both cases is also demanding an IA program. It is then not a problem for the latter to recruit additional resources if needed, especially when working in a team environment is seen by both interviewees as a success factor to IA professionalization over being an isolated internal auditor. Both IA programs are made up of at least one director and two internal auditors, both hired externally and internally because they need both types of the profile: the internal auditor knows the organisation better, while the external is likely to be more qualified in IA skills. As the Home Office interviewee noted:

> "We are now five internal auditors, which is more than the size of three foreseen by the IA decrees." [CAE, Case DEP 57, Home Office]

In addition, training is also a top strategic priority for the federal agency that wants to have highly-qualified staffing in the whole organisation. This includes internal auditors who are directly sent to IIA BEL trainings and certifications programs, regardless of the internal auditors' contractual position. Fourth, both IA programs have been implemented following the BPR movement to help construct and formalize the IA program, its job profiles and evaluation. Fifth, marketing and communication are very important for both interviewees to sensitize the staff and upper management lines including executive directors by making them aware that internal auditing is not an inspection but an approach oriented toward improvement. In this respect, executive directors of the agency are likely to be more open to audit missions because some of them amongst the audit committee members are themselves performing audit missions outside the agency. This also has an impact on the internal culture that is more open and transparent, involving for instance the publication of audit reports on the agency intranet. We noted also that the agency's IA program is more independent than the Home Office: the agency has an audit committee that is composed of representatives of stakeholders of the entity, politicians, IA experts and top managers, while the Home Office's IA program reports only to the top civil servant of the entity, not to the management committee, nor to an internal audit committee (because it has not being created before 2007 as did the agency). Furthermore, in order to better sensitize executive directors of the Home Office, the IA program since the beginning includes executive directors involved in the definition of risk in the IA program.

Both cases stressed that the political crisis has a negative impact on IA professionalization in the sense that recruitment, promotions and nomination procedures remain frozen. The future is also uncertain as seen previously, more uncertain for the IA federal governance than for the overall federal administration because of the new proposal of the federal audit committee to externalize all departmental IA programs into one external IA program.

As for the Regional Department, the external control environment focuses mainly on specific activities rather than on all businesses of the department. In particular, external control is very strong within the framework of European funds where annual accounts have to be certified. Through this scope, external auditors are playing in both roles as a facilitator and a pressure for the IA program to be professional and so reliable as to ensure single audit opportunities. The IA program has been certified ISO 9000 in 2010, which also increased similar pressure and facilitated the role of the IA program, not only to the outsider, but also to the staff. Making the internal audits acceptable to the staff was indeed a key strategic priority in the IA program since its creation when most audits focussed first on sensitive or doubtful cases. Since then, the IA program has evolved through more operational and quality practices, including initiatives with regard to self-assessment tools such as the Common Assessment Framework (CAF). The interviewee stressed that these initiatives were considered important to increase the evaluation culture based on improvement, and so constituted a positive climate on IA missions. The IA program always received complete support from the top executive civil servants. It was not really a problem to recruit because, as a young department, there is more flexibility to recruit temporary workers. This department has about twenty internal auditors supervised by a director who reports directly to the department's audit committee. The audit committee includes all top executives, political and public control representatives. The interviewee also acknowledged that, as most cases did, sometimes the IA program is blocked because some processes are not documented or formalized enough to be audited, so that consultancy is provided to fill the gaps. This is done sometimes directly by the internal auditors themselves. Our previous survey (Van Gils et al., 2008, 2010) showed that the number of consultancy missions is larger in the public sector than in the private sector, probably because public administrations are less prepared to be audited as a result of not yet achieving a critical mass in terms of process sophistication.

The deviant case

As for the deviant case, the interviewee stressed that the IA program is well prepared, with all the necessary skills, documentation and methodologies; it needs only the recognition and complete support from the top to move up.

> "Taking the current context into account, I think we are professional: I use all international standards; I have a methodology that is recognised by the IIA; I have an audit charter, an ethic code, a risk analysis, and an evaluation matrix. I therefore have all that is required. But now we need to work with all of these. We need to make them move, but I am alone. We are ready to take off here, but it is just not possible now. Indeed, everything is in place for a job to be well done, but we need recognition from the top; a formalization of my function; and also, maybe still one or two internal auditors to really carry out the mission of an internal audit at least three or fours times per year." [Internal Auditor, Case DEP 61, Innovation Department].

Apparently, top civil managers seem to have no strong pressure either to implement the recommendations put forward by the IA program, or to increase the IA team, even in spite of an explicit IA mandate.

> Probably they (management committee members) have other priorities. They were happy to have an internal audit. And that is that! We respect the royal decree, but that is all. It is a political matter, a strategic management point. Likely internal auditing is not considered as important. It is more or less the same thing for the other federal public services, it is very meagre! This situation doesn't correspond to the big change that could have produced these royal decrees. In addition, we have all the working tools that we need, these have been formalised as ISO and EMAS, and we have an audit committee to support us, to encourage us." [Internal Auditor, Case DEP 61, Innovation Department].

Nor are reporting processes between the committee management of the deviant case and the internal auditor formalized or frequent. Neither department had implemented an official job profile for its internal auditor. This creates a paradox situation: the apparently importance of the IA function while its position seems precarious in terms of managerial support and contractual statute. This situation is often found in departments or other federal agencies which leads to different contractual statutes, promotion and salary treatments for the same function, both within the same department or across departments.

> "If you do an analysis of profiles regarding the chief audit executives in each federal public service, you will see that they are completely different from each other, and this is not normal. Normally, there should be one and only one standard function, whatever the entity you work for. Here, you find contractuals, statutories, general directors, simple grades […], but it is beyond belief sometimes, it is really odd. Thus, I now serve in the role of project manager, or something like that." [Internal Auditor, Case DEP 61, Innovation Department].

Also in individual assessments, it does happen, but it is not good, as stressed by several cases, that it is still the auditees who evaluate the internal auditors. Also, as pointed out by federal cases, the long absence of the IA committee added to the fragility of this function within the federal administration.

Issue 9 "Unexplained IA professionalization cases"

The research question here is to find out what are the main determinants which lead to sustainable IA programs which were not covered by the empirical model and which need further research, namely the Provincial Municipality (MUN 25), the Laboratory (NAEA 41) and the Treasury (DEP 63). It is worthwhile to also examine irrelevant cases concerning IA programs that are not professional enough in spite of their longevity. In this case, qualitative evidence can be developed by examining the main factors that prevent IA professionalization to complete the empirical clues concerning the outcome of low IA maturity. We used the control variable "age" to select irrelevant cases with 10 years or more, namely the local Utilities Cooperative (EAE 5), the Water Supply Company (EAE 7), the University (NAEA 39) and the European Funds Agency (NAEA 40).

Concerning the sustainable IA programs not explained by the model, the Laboratory, as it has implemented a quality system rather than an IA program as such, this case lies outside of our scope, as seen earlier.

As for the Treasury, it is a rather complex case that merits further research investigation since it is the biggest department with more than 30,000 civil servants and one of the oldest ones. Change does not occur so easily.

As for the Provincial Municipality, it is clear that the external control condition and the normative pressure are playing a strong positive role in IA professionalization. Since the beginning, the IA program was high profile because it was directly based on normative directions put forward in the IA project and supported by various level of governance (executive politicians, top managers, supervising authority) including the Audit Court. So, we don't see clearly why it is an outsider: it is seen here as a typical normative case combined with a strong external control environment. Further research investigation merits understanding this ambiguity.

As for the IA programs that are unsustainable in spite of their longevity, there is a common feature shared by the Water Supply Company and the federal agency “European funds”: a complete lack of support and recognition of the IA program by top management.

> “But it is clear, if there were no rule, there would have been no internal auditing here. Thus, an internal audit is really important. They (board members) take care that we project an image of strong support of this function, that this function is really necessary. It is all window dressing. Fine, but in the back store. (Laugh) [CAE, Case NAEA 40, European Funds Agency]

It is important to note here that the Water Supply Company has changed its IA program profile several times, and that likely broke its professionalization process; when created in 1998, the IA program was a separate function directly attached under the management committee. In 2007, following a huge internal restructuring, the IA program was then attached under the Quality program. In 2009, the IA program was then directly attached under the management committee while carrying out both internal and quality audits. These constant changes undermined the program.

As for the University, the interviewee didn’t complain about the top management support, but complained about the auditees’ support instead: the auditees don’t give enough support. As stressed by the interviewee:

> “The staff starts becoming psychotic when there is an audit”. [CAE, Case NAEA 40, University]

Probably the low external control environment here doesn’t help much to make the climate more favourable to internal audits. The internal auditor stressed the following:.

> “People are impossible to budge here, contrary to the private sector where I worked before.” [CAE, Case NAEA 40, University]

So the main obstacle here seems to be the internal culture which is rather rigid and not very open. Also the IA program was implemented first by a scientist with no practical experience in internal auditing and who managed the program for about ten years. The new auditor who arrived in 2009 with senior experience as a qualified internal auditor demonstrated the willingness of the board and executives to professionalize more the IA program. It is an irrelevant case because it is probably too soon to see results arising from the work of the new hire at the University, just as it is probably too soon to see results arising from the new IA program at the Water Supply Company.

Concerning the local Utilities Cooperative, this case is outside our scope since it doesn’t have an IA program as such, though it does have quality programs.

3.7. Summary of the qualitative findings

The qualitative phase aimed at investigating further the main configurations and issues highlighted during the quantitative test involving a triangular approach, plus the mimetism condition which was not empirically tested. In total, 9 issues have been examined covering both IA adoption and IA professionalization including 21 cases taken from our empirical population of cases. We classified the 21 cases as: most typical, deviant, outliers or irrelevant according to the qualitative issue under investigation following an approach tailored to QCA. The people interviewed were mostly the respondents of the questionnaire, who were heads of internal control programs or IA programs (if the latter were present).

With respect to the nine issues

The first issue dealt with the impact of institutional pressures on IA adoption and professionalization, and confirmed that these pressures are necessary conditions. However, it was somewhat difficult to capture the origin or the main institutional driver. Most interlocutors could not recollect what it was, or were not the right person to interview. Making it more confusing, institutional pressures often overlapped. We realised then that some data errors occurred in the empirical research with this respect.

The coercive pressure, being more tangible, was easier to examine. We noted two main types of coercive pressure in our population of cases. Before 2000, the coercive pressure was generally isolated, focused on the individual entity through the organizational foundation acts, performance contracts or specific industry requirements. Then, after 2000, the diffusion of IA mandates grew larger, because the coercive pressure covered more and more entities. It has also an impact on IA professionalization depending on the “normative” content of the IA mandate, so there is a kind of coercive isomorphism, which has also been figured out by institutionalists. Some legal requirements are very IIA oriented, others are broadly formulated, creating sometimes confusion between inspection, internal control and IA when public entities interpreted them.

With regard to the normative pressure, the IA concept emerges or has been promulgated at the entity level from different sources: by other rules or requirements, by board members who are likely to be more favourable to the IA concept, by training, by literature or by external auditors themselves. The theory confirms this as well. It is also clear that the normative pressure has a strong impact on IA professionalization. It acts as a facilitator role. In this respect, all cases stressed that top management interest in IA and the resulting support should be strong and complete. Without this condition, IA programs are likely to be a “decoupling function” in institutionalism terms, or in our dissertation context having a low maturity rate (to achieve higher maturity scales, the IA program should be well integrated and transversal across organizational lines).

Mimetism occurs most intensely at the governmental level rather than at the industry level, especially because the coercive pressure diffuses the IA concept throughout a large population at the same time. A critical mass should then be achieved to produce peer pressure on the remaining groups that have not yet adopted IA. We believe that the IA concept is not well known or spread at the local level, especially because it is not yet required at the overall local governance framework in Wallonia and Brussels. It is not surprising that the greatest confusion around the IA concept was pointed out at that level, as shown by the cases. Also mimetism is found in new public governance models incorporating more and more of the IA concept, as noted in recent organizations foundations acts, decrees arising from the last administrative reforms (including Flanders), and performance contracts. Mimetism also has an impact on IA professionalization through networks of internal auditors at the same governmental level rather than in an industry in our context. IIA BEL is also a place to share good practices and tries to keep IA relevant to the public sector through specific public working groups or training than treating these as being the same as private sector ones.

Issue 2 examines the minimal path combining the coercive pressure with financial dependence and the presence of a board in the case of IA adoption. Qualitative evidence showed first that the coercive pressure exerted by a financial donor that forces a public entity to adopt an IA program will impact in different ways according to whether or not the entity is threatened with the loss of its financial funds. Consequently, the operationalization of the financial dependence condition has its weaknesses in the sense that it calculated only the proportion of the financial dependence to its other sources of incomes. However, by the inclusion of the structural autonomy in the formula, the empirical test seems to have rectified this misleading. Because the presence of a board means that the quest for legitimacy is higher, so the need to have an IA program is also higher. In that perspective, the board is rather a proxy that measures a specific context rather than a managerial driving force as stipulated by the hypothesis, although it can also play that role as well. The qualitative study also reveals that the financial dependence condition for public entities that have no real threat of losing their financial funds is a condition of little impact. Future research could then focus on the improvement of the financial dependence variable in the public sector context.

Issue 3 examines the minimal path combining the normative pressure with a strong external control in cases where the IA is implemented on a voluntary basis. A strong external control environment can be an element of the normative pressure in the sense that it will facilitate IA adoption through direct normative intervention or recommendations. The external control environment can be a contextual characteristic prompting the public entity to experience a normative pressure to adopt an IA program because the risk of noncompliance is high. It can also be an implicit coercive pressure in the sense that some external auditors expect some public entities to be reliable and professional, as is the case with public companies, so that a normative pressure occurs anyway and sometimes in parallel with the explicitly coercive pressures on IA programs. Some cases may also have various types of influence exerted by external control on IA programs, so that the normative pressure is even higher.

Issue 4 attempted to clarify why low control may have a positive impact on IA adoption. To summarize, the cases mainly demonstrated that public controls do not provide enough assurance or do not share the risk with the same force to make sure the organisation remains under control; therefore, the absence or low control becomes a clear pressure to adopt an IA program in this context. An IA program is needed for reassurance, in particular in the case of the disclosure of fraud or expansion of activities. Besides, low control can be a proxy or contextual characteristic in the sense that the public entity is too small to have complex external audits and other types of controls, including IA programs.

Issue 5 examined federal public entities that are required to implement an IA program under the royal decrees. It looked at the ambiguous results and revealed that our empirical model doesn’t explain this path well. Regardless of our six conditions, we believe the following factors explain the adoption or absence of IA programs within federal departments and internal agencies. First, some federal entities are better prepared to adopt IA programs than others. This depends on the industry and type of tasks, the degree of political sensitivity (or risk appetite) as well as individual characteristics. The critical mass achieved in terms of the sophistication of internal controls, and internal culture are important factors too. Furthermore, the weak deployment of IA programs in the federal administration can also be explained by an overall contextual element (political crisis). Also this IA reform is seen in most departments as incomplete, with a lack of political support and culture of accountability. Further qualitative investigation is needed to test the scientific validity of these arguments.

Issue 6 examined cases that are not explained by our theoretical model. Qualitative investigation revealed that about a third of the outliers under examination would have fit the solution formula of our model if empirical data errors had been avoided. For the remaining outliers, the main contradiction was accounted for by the positive impact of low control on IA adoption.

Issue 7 examined configurations involving the most conditions and which lead to high IA professionalization. All cases confirmed that this context fits the NPM hypothesis well. Above all, the comparison of the typical and the deviant cases highlighted an additional crucial factor on IA professionalization: top management should be actively involved in the IA programmation. This condition is sometimes implicitly covered by the structural autonomy attribute if the board is the main principal of IA program and includes administrators with top executive functions in the entity.

Issue 8 examined IA professionalization in cases of low managerial autonomy. In concluding this issue, it is found that low managerial autonomy is not an obstacle to increasing IA professionalization, although a large degree of managerial autonomy helps. Low managerial autonomy is above all compensated by the absolute support of top managers to increase the team and its capabilities. However, low managerial autonomy leads to more precarious internal audit positions that have a negative influence on IA development as a whole, in particular the internal auditor independence and credibility. This is especially true if the political context is unstable and if the IA program is not fully supported internally. Furthermore, public entities with low managerial autonomy are likely to experience a negative impact on IA professionalization because there is a greater probability that their internal functioning may not be sophisticated enough to carry out complex audits while providing more consultancy missions. A low managerial autonomy can be compensated for by a strong external control environment that may both pressure and facilitate IA professionalization.

Issue 9 investigated IA programs which were not covered by the empirical solution. Through the qualitative survey, we sought to clarify what the main drivers of IA professionalization were. But no clear evidence emerged because the cases were to complex to be understood given the limitations of the survey. Because the survey interviewed only one participant per entity, this sole view of internal auditors couldn't address the matter. In addition, some entities didn't show a clear profile in terms of capacity and legitimacy quest. As for the IA programs that are not sustainable in spite of their longevity, qualitative evidence showed clearly that these cases lacked the absolute top management support which, in turn, somehow discredited the overall IA function within the entity; it became to be seen as not really important. Also some IA programs have been changed several times, changing both the executives responsible for the IA program and altering its scope. These have a negative impact on IA professionalization since each change represents a kind of return to the starting point.

Qualitative contribution to the empirical test

Qualitative evidence confirmed that the empirical test fits the theoretical model well. However, differences remain high for the following reasons.

First some conditions should have been refined. The scope of some of them are at times too broad or do not differentiate enough. In some cases this leads to diluting the main driving force by other enablers pertaining to the same condition. The qualitative phase helped to delineate the main driving forces, in particular with the normative pressure (top management support versus other normative drivers), the structural autonomy (board profile versus presence of a board) and financial dependence (proportion of subsidies versus proportion of financial income from the government). Furthermore, qualitative investigation was needed to better capture the complexity of the cases as well as to interpret the explanatory power of the conditions. This is important because these act in different way. In the case of IA adoption and professionalization the same condition may act as a pressure or a facilitator simultaneously, in particular with the managerial autonomy condition where large managerial autonomy can be associated with higher managerial capacity but can also be an implicit pressure to make the entity appear professional. This is also true of the external control condition where a strong external control may act as a pressure as seen by the hypothesis, but also as a managerial driving force on IA professionalization. This also holds for the structural autonomy condition, where the presence of a board may act as a managerial driving force but also as a pressure on IA adoption since the legitimacy quest is higher. These have direct implications for the formulation of the hypothesis. However, they do not alter the overall explanatory power of the model very much.

Second, the qualitative test revealed that autonomy attributes answer partially to the explanation of IA outcomes, especially when the configurations are not typical (when the conditions provided no clear impact). In this respect, other determinants highlighted by the qualitative study may contribute to explain IA outcomes. These include contextual elements such as a political crisis, cases of fraud, and the quality of the reforms inducing IA programs. Internal elements of the entity include size, type of task, risk appetite, individual characteristics (top managers and chief audit executives), restructuring, internal culture in terms of professionalism and accountability, and the internal maturity of the organisations. These merit further investigation.

In addition, the qualitative test revealed that data errors occurred in the quantitative test because some respondents didn’t answer some questions properly, in particular those concerning the institutional pressures, the external control condition, and the IA adoption. With the qualitative evidence and the minimization procedures in the empirical test which have rectified some elements in this respect, we strongly believe that these errors did not affect the overall relevance of the model. The exception is that it has decreased the consistency rate for some paths and the number of complex paths. Its coverage would have been larger, except for IA adoption, where more cases would have been deviant or irrelevant.

Above all, the qualitative survey makes us believe that these conditions (with the exception of the coercive pressure to a certain extent) constitute *predispositions* rather than conditions or determinants. This is why the deviant cases are more likely to be better prepared than others to adopt or have more professional IA programs. These conditions are presented which give a favourable context to IA outcomes. However, as mentioned before, these preconditions should be refined, in particular by weighting some items more heavily, such as top management interest and support of the IA program.

4. Concluding remarks

This last chapter summarizes the dissertation theoretical framework and highlights the main research results with regard to the hypotheses. Furthermore it examines additional findings and concludes with an overview of the dissertation main contributions.

4.1. Summary of the dissertation theoretical framework

Within the context of managerial reforms in the Belgian public sector since the 1990, the internal audit function is viewed as a new managerial instrument to reinforce the reliability of an organization's internal control system. It has spread sporadically amongst public entities. At the same time, recent research on internal auditing has shown that the professional boundaries of the internal audit continue to evolve, driven primarily by increased attention to "good governance" and the resulting regulations, codes of good governance, guidelines, and internal control standards. Bearing all this in mind, the main research question addressed here was to identify to what extent the institutional theory explained the choices of Belgian public entities to adopt IA programs and to professionalize them.

The theoretical framework of this study argued that the institutional coercive and normative pressures are necessary but not sufficient conditions to explain IA outcomes. To complete the institutional framework of DiMaggio and Powell, an autonomy perspective of public entities has been suggested to explain IA administrative behaviour with regard to IA programs in the public context. Autonomy attributes (Verhoest et al. 2004, 2010) which drive managerial performance (managerial and structural) and constraining pressures (low control and financial autonomy) will reinforce the institutional pressures. The study examines the influence of the six conditions: the coercive pressure, the normative pressure, the managerial autonomy, the structural autonomy, the financial dependence and a strong external control environment. Their influence is examined on two phenomena: first on IA adoption; second on IA professionalization. IA professionalization is based on the maturity scale levels taken from the Internal Audit Capability Model (IIA, 2009); then simplified into three maturity states: unsustainable, sustainable and professional. Configurational hypotheses have been formulated combining both institutional pressures and autonomy attributes, assuming that various configurations of conditions lead to similar IA outcomes while some conditions are more powerful than others, depending on their interaction with each other. Consequently, this research design is not a single causal model but one of multiple causes. The hypotheses are enumerated below with their corresponding empirical findings and conclusions.

The hypotheses have been tested in the Belgian public context through a quantitative national survey from which a population of cases has been extracted. These included public entities of various autonomy scales at the same governmental level and where IA programs are managed at the entity level (excluding Flanders). A configurational analysis based on fsQCA has been conducted: first with 66 public entities at the federal, regional and local levels to test IA adoption; second, with 29 IA programs pertaining to the same population of cases to test IA professionalization. Quantitative findings have been completed by a qualitative study following a triangular approach, with 21 cases from our population of cases, to examine further the main trends and issues highlighted by the quantitative test, plus mimetism.

4.2. Research findings with regard to the hypotheses

> H.(1) Institutional pressures are necessary but not sufficient conditions to explain IA outcomes. These have to be combined with organizational enabling factors conditions, such as autonomy attributes.

The empirical test confirmed that institutional pressures are necessary conditions in the sense that these will infuse the IA concept into the public entities; otherwise how do these entities know about it? Furthermore, to broaden IA awareness, institutional pressures should reach a critical mass. IA mandates on a larger scale are of particular importance to foster a larger diffusion of IA programs. This is true not only for the ones who receive the required mandates; it also creates indirect pressure on those not subject to the mandates. In addition, because the institutional pressures are overlapping, it is very difficult to distinguish them or to recall their impact, especially if many years have passed since the implications of the IA program. Because this is true, empirical errors occurred. However, the direct coercive pressure is easier to detect since it is more tangible and obvious. The study also confirmed that the institutional pressures influence the way the IA program is shaped. Thus there is a kind of institutional isomorphism too, especially with the coercive pressure, where some IA requirements are very explicit in the formulation of the IA mandates. Notwithstanding this, the findings clearly showed that the institutional conditions are not sufficient to understand the whole IA picture. This is because the motivation of public entities to adopt and professionalize an IA program should be captured as well; that is to say, their respective *need* to have an IA program and their *capacity* to make it happen. In this respect, autonomy attributes complement the institutional framework in a satisfactory way to increase its explanatory power; this is true above all because these deal directly with these two issues in the public context, namely the pressure or legitimacy quest and their respective managerial capacity, from a public entity perspective. However, autonomy attributes are seen here in a very broad or "mechanic" way, so that difference remains large. On the one hand, additional explanatory factors are needed especially for ambiguous cases (where the conditions play a minimal role). These include contextual elements, such as a political crisis or fraud disclosure. They also include top managers and chief audit executives' individual characteristics and organisational details, such as types of task, risk appetite, size as well as internal culture and other internal capabilities. These elements merit further investigation in the public context. On the other hand, as some conditions are too broadly formulated, key drivers are sometimes diluted or become implicit in the scope of these conditions. Finally, the autonomy attributes are to be considered here as *predispositions* rather than direct conditions or determinants to explain IA outcomes. With this perspective, the autonomy attributes are seen as very powerful in the empirical test. In other words, some public entities are better prepared than others to adopt and professionalize IA program because these have these preconditions or some of these. The institutional pressures can also be considered here as preconditions, except the coercive pressure since its influence on IA is direct.

> H.(2) Autonomy attributes which drive managerial performance (managerial and structural autonomy) and constraining pressures (strong external control and financial dependence) will reinforce the institutional pressures to adopt and professionalize IA.

As just discussed, the test confirmed that the link between autonomy attributes and institutional pressures reinforces the explanatory power of the model. On the other hand, the findings reveal that autonomy attributes may exert *both* managerial performance and constraining pressures, except financial dependence. More precisely, the empirical test revealed that public entities having large managerial autonomy also create implicit external and internal expectations or pressures to be more professional than public administrations. This is above and beyond, having more managerial capacity, as foreseen by the hypothesis. It is also confirmed that structural autonomy provides more stability and a more normative environment to adopt and professionalize IA programs, but the presence of a board also means that its entity has a different context with more market pressures than a department; its quest for legitimacy is then greater. Findings also confirmed that the external control condition acts as a pressure on IA adoption and professionalization, but the empirical test shows as well that external audits also facilitate IA programs directly by providing direct recommendations. These audits can also facilitate the programs indirectly by providing a more positive internal environment in terms of the accountability culture and information delivery. These additional forces have, however, no significant impact on the overall relevance of the model, except to increase the consistency rate in some quantitative configurations.

H.(3) Some conditions are likely to contribute more than others, depending on their interaction with each other and various configurations of conditions lead to the same outcome, called the “multicausal hypothesis;

The QCA approach was particularly helpful in validating this hypothesis and related sub-hypotheses. The empirical test showed first that there are various paths that lead to IA adoption and professionalization. Second, depending on the contextual path, some conditions were more crucial than others. Furthermore, the QCA approach outlined some significant paths that are empirically rare, while these likely are to be shadowed by traditional quantitative techniques. This is true in particular for public entities with high degrees of financial and managerial autonomy. Consequently, there is no main trend or rule to explain IA adoption and professionalization. Rather, there are specific configurations arising from a very complex or multi-causal environment. The minimization process of QCA also provides some level of generalization, such as the ones covered by the two sub-hypotheses below.

H.(3.2) In case of a coercive pressure, public entities with very low financial autonomy are more likely to adopt an IA program;

This is the “financial dependence hypothesis”. This configuration was not considered to be sufficient in the empirical test: most public entities are financially dependent, so that this condition is seen as trivial if no other condition is added in this configuration. QCA minimization re-adjusted the model by including the structural autonomy in this configuration. The structural autonomy provides more normative and managerial capabilities, as discussed above. Above all, it implies that the public entity has a distinguished legal status and is closer to market competitiveness; its quest for legitimacy matters more with regard to receiving public funds than it does for departments and some agencies whose financial income is primarily derived from a budgetary line (i.e., a financial allowance). Managerial autonomy, high external control and normative pressure are additional forces that increase the reliability of this configuration, but these are not as powerful in this context in explaining IA adoption.

H.(3.3) In case of a normative pressure alone or combined with autonomy attributes on managerial performance driving conditions, public entities are likely to have higher IA maturity programs, especially if these are combined with a strong external control environment.

This is the “NPM hypothesis”. The quantitative test showed the most consistent scores with regard the NPM hypothesis, probably because the autonomy attributes are playing on both pressure and capacity. Furthermore, we expect that the presence of an independent governing body within a public governance structure is likely to give a more normative and suitable corporate environment to internal audit standards, which, after all, are derived from the private sector. With regard to the condition of financial dependence, it can reinforce IA professionalization as a constraint in the sense of the DiMaggio and Powell assumption. However, it seems not to be a crucial condition since high professionalization also occurs in cases that have high financial autonomy. In this respect, we think that the status of being a decentralized public organization is in itself a constraining pressure. As illustrated by a recent study on decentralized public agencies in Flanders (Belgium) "public managers of these organizations did fear that a loss of legitimacy and support of society and political principals could result in a reduction of tasks, cutback of resources, restructuring or ultimately, the abolishment of the public organization" (Verhoest et al.2007:484). It is important to stress here that the most typical cases presented in this configuration that have achieved the high level of IA professionalization are particularly the state-owned companies in our population of cases. The findings also reveal also that IA adopters that entirely lack normative elements favourable to IA are unlikely to have any sustainable IA programs. This is true even when the IA is clearly mandated. More importantly, the qualitative investigation highlighted that top management support stands out from the other normative drivers as the crucial normative pressure to ensure IA professionalization. In this respect, all cases stressed that top management attention to IA and support for it is imperative and should be total. Without this, IA programs are likely to be isolated functions in the sense of Meyer and Rowan's (1977) "concept of decoupling", as was previously discussed in the theoretical section, and therefore unsustainable in the long term. It is not surprising that this condition is crucial if we take into consideration the most recent IIA definition that puts forward an extension of audit activities, towards a more "universal function" (Renard, 2008). It implies that IA program should deal with all organisations' activities, including operational and performance audits and newer forms of assurance stemming from control, risk management and governance besides the traditional assurance services.

4.3. Additional findings and discussion

The empirical test revealed additional findings of interest.

Coercive and mimetism pressures and effects

With regard to the coercive pressure, we noted two different types of coercive pressure (or IA mandates) in our population of cases. Before 2000, the coercive pressure was generally isolated, focused on a few individual entities through organizational foundation mandates, performance contracts or specific industry requirements. Then after 2000, the diffusion of IA mandates was larger, because IA mandates, through administrative reforms, began to cover more and more entities.

With regard to mimetism, it occurs the most at governmental level rather than at industry level. Because the *coercive* pressure diffuses the IA concept to a large population at the same governmental level. A critical mass should then be achieved to produce a kind of peer pressure on the remaining IA non-adopters. We believe that the IA concept is not well known or spread at the local level especially because it is not yet required at the overall local governance framework in Wallonia and Brussels. It is not surprising that the confusion around the IA concept occurs the most at that level as shown by the cases.

Managerial autonomy and human resources policy

With regard to the managerial condition, managerial capacity seems to be more important in contributing to the professionalization of IA programs than in facilitating their adoption. Above all, it enables organizations to achieve higher scores on the IA program maturity scale. Having a high degree of managerial flexibility allows public entities to recruit professionals working in the IA area more easily. This is in contrast to a rigid public human resource policy and its resulting consequences for managing internal administrative capabilities. More particularly, IA programs require senior people who are especially qualified in internal auditing. However, these people are still scarce. Furthermore, the working conditions in the public sector are generally less attractive than in the private sector, and the positions also more precarious. For example, many internal auditors are outside contractors, which means that the majority of them do not have the same protections, advantages and promotions as their colleagues on staff.

Making matters worse, often, the function of internal auditor is also not yet explicitly recognized within the general organic framework of the civil service. In addition, too often in the context of individual evaluations, it is the auditee who evaluates the internal auditor. This makes this function relatively fragile within the entity while bringing contradictory situations in the career of the internal auditor in the public sector: a function which remains generally precarious regardless of how high its position, expertise, credibility, independence and expectations are in the organization. We call this “the paradox of the internal auditor”.

Three profiles of IA programs

Furthermore, the empirical test confirms that the conditions that motivated the adoption of an IA program also shaped the way it has been implemented as discussed in the theoretical framework. However, internal capacity, contextual elements and longevity are likely to alter this link, especially for IA programs that had evolved in a context of change. Notwithstanding this, we noted three profiles of IA programs in our population of cases, as a result of institutional isomorphism. The first IA program type is a more quality oriented IA profile since it emerged mainly as a result of quality assurance certification programs. When top management wishes to have a broader vision on the organizational risks, the IA program and the quality assurance program are often managed in the same department, while a strong focus on quality or operational audits is maintained. This situation appears most frequently in the context of large restructuring or in specific industries. The second IA program type is directly constructed on IIA standards, the IIA-oriented IA profile. In this context, the IA program is built directly according to the standards of IIA which are often explicitly stipulated in the legal texts or performance contracts between the public entity and the State. The third type generally appears in the context of the aftermath of fraud. The objective of the IA program in this context is to restore an image of confidence, to reassure at the same time the political world and the public. Examples of these are IA programs in local cooperatives that have been implemented after the disclosure of fraud. The principal customer of the internal audit in this context is generally the executive politicians, rather than the top civil servants. In this situation, the internal audit is seen rather than inspection-oriented IA program. We note also that some public entities include more than one IA program profile, while there is generally a slow move towards a more IIA-oriented IA profile. An homogenization of IA program in the sense of IIA-oriented profile is confirmed by our findings, above all because the diffusion of coercive pressure which stipulated IIA standards is growing, resulting in increased mimetism consequences, as discussed earlier.

In the same way, it is clear that IA programs which have a more IIA-oriented profile are also better prepared to comply with our criteria to evaluate IA professionalization. The Internal Audit Capability Model (IIA, 2009) is constructed on IIA standards to a certain extent, in particular by including the transversal scope of internal audit missions as well as IIA standards and compliance with related professional practices. There was then a small collinearity with this study, but we can accept this since the purpose of this dissertation was to examine the institutionalization of a rational myth, namely internal auditing as a profession.

Towards an institutional isomorphism in the public sector?

Lastly, the empirical study revealed an additional issue in the development of IA in the Belgian public sector. Most IA programs (54% of our cases in the national survey) are likely unsustainable without implementing further managerial capabilities and other normative elements. We raise the question of whether this general tendency is the result of a deliberate intention on behalf of public entities or a constraint. In other words, if we take a neo-institutional perspective, is there not after all an “isomorphic” maturity stage in the Belgian public context and in the public sector in general?

First, these findings should be moderated because IA is still a recent function and time is necessary for it to mature. But empirical findings also showed that many IA programs are still very low in terms of IA professionalization, in spite of their longevity.

Second, we already know, as shown in the empirical investigation, that greater managerial flexibility is needed in order to have a staff policy more adapted to the requirements of this new function and to ensure more credibility and independence. However, 73% of the public entities from our national survey sample declared they lacked this flexibility in terms of staff policy. Therefore, human resource management and staff policy seem to be real issues in the development of the internal audit function in the Belgian public sector, at least for departments and entities with low managerial autonomy.

Third, the added-value of the internal audit must be clearly perceived and used by the organization, but often when the internal audit program was imposed on the organization by an external source, the perception of the internal audit is considered to be a constraining process or a label for the organization, with little direct value for management. This is also true when the principals of IA programs are only executive politicians, where political risks are likely not the same ones as the administrative risks. In this instance, both risks are to be integrated in IA programs.

Fourth, IA professionalization also depends on the level of formalization of the internal functioning of the entity. The theoretical framework and the qualitative findings confirmed that IA professionalization and the entity internal functioning are interdependent, therefore evolve together as a path dependency. In other words, one also needs a critical point of formalization and information in the organization to make it possible for the IA programs to fully exert their missions. In this respect, it is clear in the qualitative study that some public entities were not ready to get an IA program, especially departments and agencies with low managerial autonomy or entities which had recently been created.

Fifth, the study showed as well that a culture of evaluation and accountability also facilitates IA professionalization, which is far from being spread throughout in the Belgian public sector (Pollitt and Bouckaert, 2004; Jacob and Varone, 2003).

Sixth, very often IA programs were imposed on public entities before defining or rationalizing the processes of public control. Often this creates a discomfort arising from a feeling of duplication, dysfunction or competition between internal and external auditors. Instead of having a single audit, there is a kind of “audit explosion” in the sense of Power (1999). Nevertheless, even if much confusion remains about the public accountability and control chain, external auditors in general admit that internal auditors help them to provide information because their audits become increasingly complex, such as for example performance audits.

Last, one imported the IA concept from the private sector to the public sector context. Although the private sector practices are often referred to as a source of inspiration in NPM reforms, problems and challenges arise when it comes to transferring these practices to the public sector context since its missions and governance principles are very different from the private sector context. Through administrative reforms, the internal auditor thus becomes officially a new actor of public governance and control, but adaptations are necessary to fit the IA concept and related practices to specificities of public governance, in particular in the public control chain with regard to the concept of independence and accountability.

To conclude, we are at the dawning of the IA institutionalization process in the Belgian public context. It is clear that the positioning of the IA and thus its professionalization must evolve. Therefore, there is currently no single, standardised IA performance model, but rather a variety of IA performance models that reflect the context of their public entities. We have already reported the main results of the dissertation in international conferences. There, some participants confirmed that some of these issues and findings were present in their own country's public contexts. More precisely, we strongly believe that public sector contexts in other countries likely share the same issues and results, especially when these countries exhibit contexts similar to the Belgian public sector; this is particularly true with regard to rigid human resource policies and poor evaluation and accountability frameworks. It will be interesting to embark on a similar comparative study on an international scale to check the relevance of these findings for other national public contexts. The COBRA theoretical framework used in this dissertation provides such international comparative research opportunities, as seen in the Introduction. In the same way, we also hope this dissertation will feed further studies in IA research both by raising public sector awareness and sparking new research ideas in the Internal Auditing and Public Management disciplines.

4.4. Dissertation scientific contribution

The main empirical findings contribute to institutional research dealing with managerial practice at the very early stage of its institutionalization process at the organizational level (meso level) in the public sector context.

The dissertation demonstrates that additional factors are necessary to increase the explanation power of the institutional framework, in particular factors that measure the need and capacity to respond to these institutional pressures, including contextual elements and individual characteristics, as discussed above. The original contribution of the dissertation to institutional theory is that we deliberately bring a public sector perspective with regard to public response to institutional pressure. In this regard, DiMaggio and Powell's hypothesis of the influence of financial dependence on the coercive pressure has been refined since financial dependence appeared most of the time as a trivial condition in the public sector, especially if the accountability culture is low.

The dissertation also contributes to neo-institutional research by examining the post-adoption life of the managerial practice, which up until now has been rare. The logic of the IA-CM model, which came from broader practitioners' self-assessment tools that measure the degree of sophistication of organizational systems, was particularly helpful in studying this issue. The model provided all the ingredients acknowledged as necessary to ensure administrative sustainability and professionalization. These two issues of sustainability and professionalization are very important in measuring the performance of the institutionalization process of a managerial practice within an organization. We question whether this has been implied as deeply in any other academic research dealing with the post-adoption life of a managerial practice.

The dissertation also brings new findings and ideas in IA research, both in the private and public sector alike. More particularly, the determinants of IA adoption merit further investigation, especially the impact of external control environments which shows contradictory results in this research, but also with regard to findings highlighted by other empirical studies in this area (e.g. Brody et al., 1998; Felix et al., 2001; Goodwin, 2004). Determinants to push towards more IA professionalization also merit further examination such as the involvement of top management in IA programs and the role of Audit Committees. Above all, this dissertation brought more public sector awareness in IA research, by involving new perspectives such as NPM and public entities of various types. Furthermore, the "paradox of the internal auditor" cited above seems to be a promising topic alone for future research in this context.

The dissertation brings also an original research topic to public administration science. The IA topic in public administration disciplines is not yet deeply examined although an interest of this topic has increased since the last public administrative reforms. With respect to public administration theories themselves, the dissertation main contribution in this area is to test the hypotheses in a context of various public entities types, including departments and agencies. In other words, instead of comparing various national public contexts, we compare public entities of different types in the same national context. In the same way, the QCA approach was particularly helpful in this comparative context to highlight configurations that would have been shadowed in traditional statistics, in particular for certain types of public entities that are very rare empirically. With regard to autonomy attributes, their expected theoretical effects based on NPM discourse have been confirmed and refined.

The dissertation findings are also relevant for regulatory bodies, politicians and other agents involved in the design of public managerial reforms in general. By emphasizing certain results in the concluding remarks, we indirectly demonstrated that any legal mandate implementing a specific administrative practice cannot be transposed from a normative norm or a private sector context to a public sector environment as such. In the same way, the reformers should first reflect further on the relevance of the required administrative practice with respect to the operational environment of the targeted public entities. Then, they should investigate whether these entities are ready in terms of culture and capacity to implement the required change. Second, legal requirements must be well described, not only normatively, but above all interpreted and adapted to public sector contexts. They must be in line with the "spirit" of the normative practice that is being required, and this in turn, requires a real mastery of the topic. This will avoid the confusion or misjudgement often noted in the dissertation's empirical test. Third, the dissertation results clearly show that these legal texts cannot be written out in isolation. The drafting of procedures and the final ones that emerge should involve other key actors supporting the reforms, such as human resource policy regulators. This provides public entities with adequate administrative support and the capacity to operate under the new legal requirements. These legal mandates should also include updating other administrative procedures and legal texts that have any connection to the new legal requirements. Some IA mandates include such elements, while others do not. We argue that the effectiveness of these legal mandates is dependent on the elements mentioned above, and these are of paramount importance in gaining acceptance, implementation and professionalization of the required practices in the public context. This point holds true irrespective of the other determinants discussed in this dissertation or elsewhere.

4.5. *Areas for improvement and research agenda*

There is likely to be a bias in some findings since most public entities that participated in the survey already had an interest in IA. This excluded a large proportion of public entities that did not adopt IA, including public entities that don't have a clue about the subject. But, as argued in chapter II, this gap doesn't impact the scientific validity of the findings within the scope of this dissertation. Also a bias likely may occur with regard to the institutional pressures because the coercive pressure was easier to detect since it is more explicit and tangible. The coercive pressure was also the most accurate indicator compared to the normative pressure, because we knew most IA official mandates in the Belgian public sector; therefore, this dimension was easy to review during the quality control process applied to the quantitative data.

Furthermore, we noted an important data error rate in the statistics for the following reasons. The questionnaire was very long (average time to complete was 45 minutes) and after the analysis of the data and feedback from some of the respondents, we realised that some questions were too complex or subjective to capture precise answers through the quantitative survey. This was true despite the survey having been constructed with a group of public sector representatives and tested before the empirical test. The questions related to managerial autonomy, external control, financial dependence and IA adoption were the least reliable variables. However, a recall process has been done with the majority of the respondents before analysing the data in particular with regard to the managerial and financial conditions. The qualitative study helped to further readjust some quantitative findings. However, we think that the quantitative findings would have been more consistent and that the minimization process would have been more parsimonious if the conditions and IA adoption had been more accurate from the beginning.

More significant, it is important to stress here that the empirical evidences rely only on the views of chief audit executives or chief executives in charge of other specific internal control fields such as quality assurance or accounting. Other perspectives would be relevant, including external auditors, board members, politicians, and top civil servants. As well, most respondents were not the ones who initiated the idea for an IA program, and some were not present when the IA program started. Furthermore, it is important to note that the PhD candidate has been working in international and national public contexts such that her experience helped to augment internal auditors' views on specific topics.

There are other limitations, such as those with regard to the simplification of the autonomy attributes and IA capability model for the purpose of this research study. However, these have been reviewed at length in the relevant sections. Nevertheless, all these model simplifications are necessary to enable large research comparisons to the detriment to their exhaustivity.

It is important to stress again that Flanders has been excluded from the empirical test because IA is centralised at the regional level while public entities at the local level didn't show enough variation in terms of autonomy. But the IA regulatory framework and global statistics cover the entire territory showing no major differences in terms of IA professionalization where most IA programs remain unsustainable or sustainable in Flanders too. In this respect, we could wonder to what extent centralization or decentralization of IA programs has an impact on IA professionalization if further research is conducted in this area.

In the same way, we wonder if the dissertation findings can be applied to other national contexts as questioned above, since IA statistics and studies in this sector remain scarce or not explanatory enough until now. An international comparison is needed here to extrapolate the dissertation main findings. In this respect, we assumed that countries which share similar cultural contexts are likely to share similar findings with regard to internal auditing. Thus, it would be interesting to compare IA findings on the basis of national contextual differences exposed in public administration theories. For instance, an international comparison of the IA findings based on the type of public administration systems such as the "Rechtsstaat model" versus the "Anglo-Saxon notion of the public interest", or hybrid models (Pollitt and Bouckaert, 2004). The two authors stated that both models have an implication on the way public reforms are implemented. In general, countries which follow more a Rechtsstaat model such as Belgium, France and German are expected to be slower to reform than public interest regimes such as Australia, New Zealand and UK. This is because, as stated the two authors (Pollitt and Bouckaert, 2004:53), "management change would always require changes in the law and, culturally, because senior civil servants who are highly trained in administrative law may find it more difficult than generalists to shift to a 'managerial' or 'performance-oriented' perspective." The two authors suggest additional features likely to affect the process of management reforms such as "the state structure", "the nature of the executive government at the central level", "the way relationship work between political executives (ministers) and top civil servants ('mandarins')" and "the dominant administrative culture" to cite a few. We strongly recommend carrying out an international comparison based on these features. Most IA programs in the public sector were established following recent public managerial reforms designed to increase the managerial accountability, performance, and reliability of public administrations. We expect that these factors might influence how each country interprets and performs internal auditing in terms of role, mission and accountability, that is to say, the scope and features of IA practices. These contextual elements are of paramount importance when interpreting IA practices in each country. It is important to stress here that these national contextual features can be considered here as *path dependencies* to maintain coherence with an institutional perspective.

Last, as the objective of the research has been mainly "exploring", we made a deliberate choice to report as many findings as possible. Some have been lightly interpreted and merit further scientific investigation. The underlying idea was to bring more awareness of the public sector in IA while providing statistics and new research ideas in this area. Among the new research topics suggested out of the ones mentioned in the dissertation main document, for instance, are the role of the internal auditor in public governance, the IA governance within a public entity or at a governmental level, the independence of IA from a public sector perspective, and the politico-administrative relationship in the internal audit context, to cite a few. Table 13 shows a summary of the research topics coming out of the dissertation study

Table 13 Research agenda

Other determinants on IA adoption and/or professionalization in the public sector

- Composition of the board members
- Audit committees
- Effectiveness of the reforms, quality of the IA mandates
- Size, budget and age of the public entity
- Type of main task (policy building, service provider, control, ...)
- Policy area
- Risk appetite
- Individual/cognitive characteristics (politicians and top civil servants)
- Internal culture in terms of professionalism, accountability and transparency
- Administrative sophistication in terms of process, internal control devices and governance
- External control
- National contextual features (accountability culture, politico-administrative relationship, public administrations systems, …)

Broader research topics on IA in the public sector context

- The paradox of the internal auditor
- IA service architecture (centralization/decentralization)
- Role of the internal auditor in public governance and its added value
- Models of IA governance within a public entity or at a governmental level
- Composition of audit committees and its impact on IA independence
- Independence of IA from a public sector perspective
- Comparative international studies

5. Appendices

5.1. Appendix "Ph.D. Capability Model: Construction, justification and overview"

This section explains how the Ph.D. Capability Model has been constructed.

The research model framework has not taken into consideration all IA-CM essential activities present in the Key Process Activities (KPAs). It is important to remember that the main objective of the dissertation model framework is not to be exhaustive with regard to the content of the IA-CM, but to include sufficient elements and facts enabling us to establish the corresponding maturity scale in terms of sustainability (its integration within the organisational settings) and IA professionalism (professionalism to manage IA operations). This implies also that the maturity score of each IA program attained in this study is likely to be different to their corresponding scores in reality if a real assessment was carried out. This is not only because the IA-CM has been simplified, but also because most of the survey data have been based on respondents' judgement.

Second, on the basis of the exploratory survey that we conducted in 2008, the findings reveal that most IA departments were not very sophisticated Consequently, having a questionnaire that incorporated items with high professional IA standards would be a waste and underproductive because most organizations would have been incapable of responding to most items because the items would have been meaningless and irrelevant for their IA level of sophistication.

Third, the selection of indicators to be included in our research model was mainly based on the identification of clearly defined and complementary facts or processes in the essential activities that were suggested by the official model. It is important to stress here that the IA-CM doesn't provide a clear fixed checklist of indicators or proxies to measure an essential activity. Instead, outputs, outcomes and institutionalizing practices examples have been suggested to provide the reader with a "broad idea" of what is important, that will likely induce high subjectivity and differing interpretations. Furthermore, if all the IA-CM concerns were to be included in the analysis, the survey questionnaire to collect them would be so long that it would threaten to drag down a high response rate and impinge on the quality of data. Also, some KPAs deal with similar issues with very little variation because any fact or variation in terms of process or content within a KPA is evidence of a move upward in the sophistication or maturity level of the related IA program. However, as mentioned above, most of the KPAs are described in broad terms, with the result of a feeling of redundancy of phenomena.

Fourth, we are particularly worried about including the whole scope of the dimension called “Services and Roles of the IA program” to be associated with a specific IA maturity scale as such in our analysis. Although the types of audit missions and roles have been captured throughout the survey questionnaire, we strongly believe that the profile or scope of the internal audit mission performed in a public entity depends upon contextual elements, regulations and risks specific to an industry as well as public control concerns. Such differences will impact IA missions irrespective of the entity’s level of complexity. Also the number of financial audits performed by internal auditors is likely to be fewer in public entities where external public auditors, working on behalf of the government, conduct regular financial audit missions. Last, performance audits are likely to increase the scope of the IA missions on the basis of public control reforms. These gradually put more emphasis on performance audits than compliance audits; this does not constitute a move to IA sophistication as shown by IA-CM. We strongly recommend being careful when associating types of IA missions with normative IA sophistication and corresponding maturity scale, at least within the public sector. Nevertheless, when the scope of IA missions starts to deal with consultancy activities (level 3 in the IA-CM) and governance, risk management and control in the IA-CM (level 4), we have included them in our dissertation framework analysis. Because this scope deals with more transversal and strategic administrative concerns while manifesting a more integrated IA program within organisational units including internal control programs and related processes. Also, we included this because this issue concerns the expected IA role according to the official IA definition; namely an expert and assurance provider in governance, risk and internal control.

Consequently with what has been stated above, the selection of the indicators in the model was based upon the extent to which the presence of a clear output or product could be associated with a related essential activity. Examples are the presence/absence of an IA charter, or an IA competency framework, or a quality assurance program; these avoid items which require subjectivity by the respondents, such as effectiveness and independence of a related IA practice.

Concerning the reduction of essential activities within the model, as noted earlier, some elements in the model are somewhat redundant between KPAs, in particular between « Organizational relationship and Culture » and « Governance » dimensions, and, between « Performance Management and Accountability » with « Governance and Professional practices » dimensions. Sometimes redundant elements appear at different maturity level such as “the provision of advices or consultancy services” at level 3 within “services and roles”. In this case, selection of the related output has been taken from the lowest maturity level.

The model has then been simplified into three main complementary capability dimensions: “People Management”, “Governance and Structure” and “Professional Practices”. Essential “hard elements” have been included in the model if these provide added value that is clearly defined and complementary. Table 14 shows the final selection of each item per dimension. It shows the 66 items which have been selected in the research model from the 191 KPA of the IA-CM model. Level 1 is not considered here because it is not seen as a sustainable IA program; it refers to the “initial” level.

Table 14 Overview of the simplification of the IA-CM

	People Management	Professional Practices	Governance Structure
Level 5: Optimizing	60. IA staff is a facilitator or an executive member of the IIA or related associations	61. Mandates and working documents updated 62. High conformance with IA standards 63. Benchmarkiing activities 64. Reliance of IA work by external auditors (ORC*)	65. Public marketing of the IA program 66. Participation to the elaboration of the organisation strategy (SR*)
Level 4: Managed	43. IA staff is an active member of the IIA or related association 44. Rotation/internship programs 45. IA as a facilitator/trainee	46. IA plan updated 47. IA scope on governance, risk management and control (SR*) 48. Strategic plan (PM*) 49. Client surveys (PM*) 50. Monitoring the implementation of recommendations (ORC*)	51. Audit Committee or equivalent 52. Formal recruitment of AC members 53. Various profiles of AC members 54. AC Secretariat 55. AC charter 56. AC code of ethics 57. CA appoints mainly the CAE 58. Regular informal contact between CAE and governing board 59. Regular contact between IA /CAE and the CA
Level 3: Integrated	21. IA internal competency/career framework 22. Formal IA individual evaluation system 23. IA professional development plan 24. Formal IA promotion system 25. Professional certification in the IA or related areas 26. Behaviour training 27. Use external and in-house expertise 28. Resource planification process and/or timesheet	29. Risk-based audit plan 30. Quality assurance and improvement programs 31. Performance management system (PM*) 32. Quantiative monitoring tools to measure IA program 33. Provision of consultance/advise services (SR*) 34. Audit scope on corporate results based objectives 35. Performing Risk management	36. Formal IA budget 37. Formal reporting mechanisms 38. IA program is a top issues in top-management meetings 39. Presence of coordination document or procedures with internal control services 40. Regular meetings with internal control services 41. Exchange of audit reports or audit plans with internal control services 42. Regular coordination of audit plans with external auditors (ORC*)
Level 2: Infrastructure	1. Formal IA job description 2. Formal IA recruitment policy 3. CAE with senior IA experience 4. At least 40 hours of training per year 5. Training in IA field 6. Membership to IIA or related professional bodies	7. Adherence to a code of ethics 8. Adherence to IA standards 9. IA manual 10. Programmation of audit activities (PM*) 11. At least management and stakeholders concerns are in your audit plan	12. Internal communication on IA importance and benefits 13. IA service structurally attached to top-level authority 14. Formal service for the IA program (ORC*) 15. Executive policies to support access to organizational assets and people 16. Necessary resources obtained (ORC*) 17. Signature of official documents by top-level authority 18. IA Budget approved by governing body (PMA*) 19. IA charter 20. IA charter updated

* PMA = Performance Management and Accountability, * SR = Services and Role of IA, * ORC = Organizational Relationship and Culture

5.2. Appendix "Population of cases"

Population representativeness

	Sample	Response rate	% in sample	% in population
Federal Adm	32	36%	26 (+)	15
Flemish Adm	28	26%	23 (+)	18
Wallonia Region	13	37%	11 (+)	6
Brussels Region	3	14%	2 (-)	4
French Community	7	33%	6 (+)	4
Wallonia Local	18	17%	16 (=)	17
Flanders Local	16	10%	13 (-)	27
Brussels Local	4	8%	3 (-)	9
	121	21%	100	100

Policy area

Concerning the main policy area in which public entities operate, a classification has been suggested in the questionnaire on the basis of the United Nations Classifications of the Functions of Government (COFOG) as a starting point, as in the COBRA methodology. Few adaptations have been made after the questionnaire had been tested. The following categories have then been suggested in the questionnaire:

(1) Finance and management;

(2) Economy, agriculture, innovation;

(3) Health;

(4) Social protection and employment;

(5) Education, culture, recreation;

(6) public utilities (i.e. gas, electricity, water, telecom);

(7) Mobility;

(8) Housing and community amenities; and

(9) Others.

Simplification is made for the purpose of this section, including the repartition of cases, as shown in the table below:

Table 15 policy area

	N	%
Economics (categories 1-2)	8	12
Social protection and health (3-4)	21	32
Education, culture, recreation	5	8
Housing and utilities (6-8)	20	30
Other	12	18
Totals	66	100

5.3. Appendix "Raw data of the population of cases"

Table 16 Raw data of the population of cases

ID	Label	Size	C	N	M	F	S	E	A	PRO	Age IA
1	AEA	18000	0	1	5	0	1	1	1	0,9	16
2	AEA	3800	0	1	4,29	10	1	1	1	0,7	12
3	AEA	200	0	1	5	45	1	1	0	0	
4	AEA	29400	0	1	5	10	1	0,75	1	0,8	10
5	AEA	261	1	1	5	6	1	0,75	1	0,6	10
6	AEA	3888	1	1	5	31	1	1	0	0	
7	AEA	1594	1	1	5	0	1	0,25	1	0,6	14
8	AEA	220	1	1	4,14	0	1	0,25	0	0	
9	SAEA	613	1	1	4,43	94	1	0,5	1	0,6	9
10	SAEA	13500	1	1	5	57	1	0,5	1	0,7	5
11	SAEA	139	1	1	2,14	44	1	0,25	1	0,6	1
12	SAEA	249	1	1	4,71	100	1	0	1	0,6	3
13	SAEA	285	1	1	3,29	0	1	0	0	0	
14	SAEA	94,75	1	0	4,43	60	1	0,75	0	0	
15	SAEA	214,73	0	1	2,86	10	1	0	0	0	
16	SAEA	625	1	0	3,29	38	1	0,5	0	0	
17	SAEA	2380	0	1	3,86	30	1	0	1	0,6	1
18	SAEA	4937	0	1	5	70	1	1	1	1	
19	SAEA	6,75	0	0	3,43	0	1	0,5	0	0	
20	SAEA	86	0	1	4,86	98	1	0,25	0	0	
21	SAEA	50	0	0	4,71	93	1	0,25	0	0	
22	SAEA	120	0	0	2,29	19	1	0,75	0	0	
23	SAEA	220	1	1	3,29	45	1	0	1	0,6	4
24	SAIA	34,5	0	1	4,71	97	0	0,5	0	0	
25	MUN	4558	0	1	4	40	0	1	1	0,7	1
26	MUN	480	0	1	4,43	42	0	0,5	1	0,6	5
27	MUN	594	0	0	3	37	0	0	1	0,6	3
28	MUN	1302	1	0	3	37	0	1	0	0	
29	MUN	798	0	0	3	31	0	0,5	0	0	
30	MUN	450	0	1	3	80	0	0	0	0	
31	NAEA	250	0	1	3,29	100	1	1	1	0,7	5
32	NAEA	612	0	1	3,14	100	1	1	1	0,6	2
33	NAEA	773,39	0	1	3,43	97,4	1	0,5	1	0,6	3
34	NAEA	220	1	0	3,71	55	1	0,5	1	0,6	8
35	NAEA	150	1	0	3,86	100	1	0,25	1	0,6	3
36	NAEA	2300	0	1	3,86	100	1	0,25	1	0,6	8
37	NAEA	4000	1	0	2,57	90	1	0,25	1	0,6	2
38	NAEA	375	1	1	2,14	88	1	0,25	1	0,6	7
39	NAEA	5000	0	1	3,57	66	1	0,25	1	0,6	12
40	NAEA	190	1	1	2,29	98	1	0	1	0,6	14
41	NAEA	21	1	1	3,43	95	1	0	1	0,7	4
42	NAEA	287	1	0	2,29	90	1	0	1	0,6	2
43	NAEA	4	0	1	1,57	70	0	0,5	0	0	
44	NAEA	119,5	0	0	3,57	15	1	0,5	0	0	

ID	Label	Size	C	N	M	F	S	E	A	PRO	Age IA
45	NAEA	300	0	1	3,86	100	1	0,25	0	0	
46	NAEA	96	0	1	3,86	59	1	0,25	0	0	
47	NAEA	18	0	0	2,71	68	1	0	0	0	
48	NAEA	9	0	0	3,86	61,5	1	0	0	0	
49	NAIA	450	1	0	2	100	0	0,5	1	0,6	2
50	NAIA	216,46	1	0	3,43	79	0	0	1	0,6	9
51	NAIA	1300	1	1	3,43	62	0	0	1	0,7	3
52	NAIA	55	0	0	2,43	100	0	0	0	0	
53	NAIA	150	1	1	3,57	75	0	0,5	0	0	
54	NAIA	445	1	1	3,43	60	0	0,5	0	0	
55	NAIA	70	1	1	3,86	98	0	0	0	0	
56	NAIA	650	0	1	3,71	86	0	0	0	0	
57	DEP	4400	1	1	2,57	97	0	1	1	0,7	3
58	DEP	3500	1	0	2,57	100	0	0,5	1	0,6	1
59	DEP	12000	1	0	1,57	100	0	0,5	1	0,6	4
60	DEP	1321	1	1	2,71	95	0	0,5	1	0,7	11
61	DEP	2700	1	1	2	95	0	0,5	1	0,6	8
62	DEP	5000	0	1	3,86	85	0	0,5	1	0,7	11
63	DEP	25000	1	0	2,14	96,25	0	0,25	1	0,7	10
64	DEP	10000	1	0	2,71	100	0	0	1	0,6	
65	DEP	1400	1	1	1,71	98,7	0	1	0	0	
66	DEP	1236	1	0	1,71	100	0	0,5	0	0	
67	DEP	1200	1	1	1,57	95,38	0	0,25	0	0	

Note: C = Coercive pressure; N= Normative pressure; M=Managerial autonomy; F= Financial dependence; S= Structural autonomy; E= strong External control environment; A= IA adoption ; PRO=IA professionalization

5.4. Appendix “Test of necessity”

Output from the FSQCA 2.0 software application is put in a different font face from the dissertation text.

(1) Outcome variable: IA adoption with the six conditions

	Consistency	Coverage
coercive	0.631579	0.666667
~coercive	0.368421	0.466667
normative	0.710526	0.627907
~normative	0.289474	0.478261
managerial	0.442632	0.576620
~managerial	0.557368	0.575075
funded	0.718947	0.617960
~funded	0.281053	0.490133
structural	0.631579	0.600000
~structural	0.368421	0.538462
control	0.465000	0.588412
~control	0.535000	0.565193

(2) Outcome variable: IA adoption with the two institutional conditions

	Consistency	Coverage
coercive+normative	**0.975000***	0.602929

(3) Outcome variable: ~adoption with the six conditions

	Consistency	Coverage
coercive	0.428571	0.333333
~coercive	0.571429	0.533333
normative	0.571429	0.372093
~normative	0.428571	0.521739
managerial	0.441071	0.423380
~managerial	0.558929	0.424925
funded	0.603214	0.382040
~funded	0.396786	0.509867
structural	0.571429	0.400000
~structural	0.428571	0.461538
control	0.441429	0.411588
~control	0.558571	0.434807

(4) Outcome variable: IA professionalization

	Consistency	Coverage
coercive	0.532710	0.443333
~coercive	0.467290	0.636364
normative	0.867156	0.541250
~normative	0.132844	0.398000
managerial	0.748999	0.759648
~managerial	0.649533	0.683767
funded	0.734312	0.527325
~funded	0.369159	0.679361
structural	0.643525	0.507368
~structural	0.356475	0.534000
structural	0.643525	0.507368
~structural	0.356475	0.534000
control	0.761015	0.771313
~control	0.580774	0.611814

(5) Outcome variable: ~IA professionalization

	Consistency	Coverage
coercive	0.714693	0.556667
~coercive	0.285307	0.363636
normative	0.785307	0.458750
~normative	0.214693	0.602000
managerial	0.679030	0.644550
~managerial	0.746790	0.735769
funded	0.813837	0.546980
~funded	0.296719	0.511056
structural	0.667618	0.492632
~structural	0.332382	0.466000
control	0.606277	0.575101
~control	0.758916	0.748242

5.5. Appendix "QCA sufficient solutions in the cases of presence and absence of IA adoption"

Output from the FSQCA 2.0 software application is put in a different font face from the text of the dissertation.

(1) Presence of IA adoption

```
Model: IA adoption = f(coercive, normative, managerial, funded, structural,
control)
```

Truth Table

In this study, we used a permissive cut-off value of 0.75 for consistency: all types of cases are included in the formula analysis; and a frequency threshold of 2, which corresponds to 80% of the sample population. After having tried different combinations of thresholds, this test shows the most significant and representative results, although the main patterns appear in all tests, regardless of the permissive thresholds.

Table 17 Complete Truth Table in case of IA adoption

row	C	N	M	F	S	E	A	n	raw consist
1	0	1	1	0	0	1	1	2	0.99
2	1	1	0	1	1	0	1	3	0.98
3	1	1	1	1	1	1	1	2	0.97
4	1	0	0	1	1	0	1	3	0.90
5	1	0	0	1	0	0	1	3	0.89
6	1	0	0	1	0	1	1	4	0.75
7	0	1	1	0	1	1	1	4	0.73
8	0	1	0	1	1	1	1	4	0.68
9	1	1	1	0	1	0	1	2	0.62
10	1	1	0	0	1	0	1	3	0.58
11	1	1	1	0	1	1	1	2	0.55
12	0	1	0	1	1	0	1	4	0.52
13	1	1	0	1	0	1	0	6	0.46
14	0	1	0	0	1	0	C	2	0.43
15	1	1	0	1	0	0	C	3	0.41
16	0	1	0	1	0	0	C	2	0.31
17	0	0	0	0	1	1	C	3	0.00
18	0	0	0	1	1	0	0	2	0.00
19	1	1	1	1	1	0	0	1	0.98
20	0	1	0	1	0	1	C	1	0.81
21	1	0	0	1	1	1	0	1	0.76

row	C	N	M	F	S	E	A	n	raw consist
22	0	1	1	1	1	1	C	1	0.68
23	0	0	0	0	0	0	C	1	0.66
24	0	1	1	1	0	1	0	1	0.55
25	1	0	1	1	1	1	0	1	0.50
26	0	1	1	1	1	0	0	1	0.44
27	1	0	0	0	1	1	0	1	0.29
28	0	0	0	1	0	0	0	1	0.12
29	0	0	0	0	0	1	0	1	0.07
30	1	0	0	0	0	1	0	1	0.01
31	0	0	1	1	1	0	0	1	0.00
32	0	1	0	0	0	1		0	0.99
33	0	1	1	0	0	0		0	0.98
34	0	1	0	0	0	0		0	0.96
35	1	1	0	1	1	1		0	0.95
36	1	0	1	1	0	0		0	0.89
37	1	0	1	1	1	0		0	0.80
38	1	0	1	1	0	1		0	0.75
39	0	1	0	0	1	1		0	0.61
40	0	1	1	0	1	0		0	0.61
41	1	1	0	0	1	1		0	0.56
42	0	0	1	0	0	0		0	0.50
43	1	1	0	0	0	0		0	0.41
44	1	1	1	0	0	0		0	0.41
45	1	0	1	0	1	0		0	0.40
46	1	0	1	0	1	1		0	0.39
47	0	1	1	1	0	0		0	0.38
48	1	0	0	0	1	0		0	0.38
49	1	1	1	1	0	1		0	0.37
50	1	1	1	1	0	0		0	0.36
51	0	0	1	1	0	0		0	0.35
52	0	0	0	1	0	1		0	0.33
53	0	0	1	1	0	1		0	0.33
54	1	1	0	0	0	1		0	0.20
55	1	1	1	0	0	1		0	0.20
56	1	0	0	0	0	0		0	0.17
57	1	0	1	0	0	0		0	0.17
58	0	0	1	0	0	1		0	0.16
59	1	0	1	0	0	1		0	0.04
60	0	0	0	0	1	0		0	0.00
61	0	0	0	1	1	1		0	0.00
62	0	0	1	0	1	0		0	0.00
63	0	0	1	0	1	1		0	0.00
64	0	0	1	1	1	1		0	0.00

Note: C = Coercive pressure; N= Normative pressure; M=Managerial autonomy; F= Financial dependence; S= Structural autonomy; E= strong External control environment; A=IA adoption

Table 17 is referred to as a Truth Table where fuzzy information on the 66 cases are being dichotomised so that it shows the data in a more logically structured way, making the relationship between cases, conditions and outcomes clearer.

Each row represents one of the possible combinations of the six conditions. All cases that have identical combinations of the conditions are grouped together. A score of 1 indicates that the given condition is present and a score of 0 indicates that the given condition is absent.

The “A” column indicates the value of the outcome characterized by the combination of conditions indicated in the respective row, followed by the number of cases (column “n”) displaying such a combinations (i.e. the number of cases with a membership score of the given causal combination greater than 0.5). The outcome is then recoded as a dichotomy in column “A” as either consistent (outcome = 1) according to the threshold, is recoded as inconsistent (outcome = 0) or is contradictory (outcome = C). Outcome C means that the respective set of conditions are neither sufficient for IA adoption, nor sufficient for the absence of IA adoption. The last column (“raw consist”) indicates the consistency value of the outcome that those cases display in the row, running from 0 to 1 (the closer the value is to 1. the more consistent are the cases in displaying the outcome). In this study, we used a permissive cut-off value of 0.74 for consistency, so that all types of case labels are included in the formula analysis. We also used a frequency threshold of 2, which corresponds to 80% of the sample population.

On the basis of the control size variable, we decided to eliminate one case in row 8 (see the case in row 43 in the Data Matrix in Table 4 because the remaining 3 cases displaying the same causal combination have adopted an IA program, while the excluding one does not. This is probably because of its very small size (only 4 employees). The exclusion of this case has increased the consistency of the causal combination of the other 3 cases.

This table reveals several elements important for the analysis of causal paths. The first 12 rows (18%) are linked as sufficient conditions for the occurrence of IA adoption (A=1. row1-12). Five rows (7%) show contradictory results (A=C, rows 15-16, 20 and 22-23). These are not included in the data process analysis in case of IA adoption and will be investigated further through qualitative studies, so that other conditions needed to explain IA adoption or absence will complement the empirical conclusions and refine our theoretical framework[135].

For instance, row 16 shows that an AEA has adopted an IA program, one does not. Finally, 12 rows (18%) are linked to the nonoccurrence of IA adoption. These will be further examined during the test of sufficiency in case of absence of IA program following the QCA regular analytical procedure.

Furthermore, despite having 66 public entities in the data set, the table reveals that limit diversity in the data exist, that is, not all logical possible combinations of conditions are

135 See the deviant, outliers and irrelevant cases in Figure 23 Cases studies overview.

empirically observed. Limited diversity is always present in all social comparative research that is based on observable data (Grofman and Scheinder, 2009:664). After all, there are 64 (26) logically possible combinations (rows) that can be constructed using the six conditions. The table shows that the empirical cases cover 31 of the 64 combinations (48%).

The remaining 33 combinations are logical remainders that are not covered by the sample. The treatment of these logical remainders will influence the results obtained as these will be used as potential counterfactual cases for further logical simplification of the truth table.

Solution formulas in case of IA adoption

Algorithm: Quine-McCluskey

--- COMPLEX SOLUTION ---
frequency cutoff: 2.000000
consistency cutoff: 0.741047

		raw coverage	unique coverage	consistency
1.	coercive*~normative*~mgt*funded*~structural	0.128684	0.128684	0.826014
2.	coercive*~mgt*funded*structural*~control	0.150789	0.131316	0.943987
3.	~coercive*normative*mgt*~funded*control	0.100789	0.096053	0.801255
4.	~coercive*normative*~mgt*funded*structural*control	0.068158	0.063421	0.806854
5.	coercive*normative*mgt*funded*structural*control	0.045263	0.025790	0.971751

solution coverage: 0.469474, solution consistency: 0.869396

(1) Cases with greater than 0.5 membership in term coercive*~normative*~mgt*funded*~structural:
DEP (0.92,1), DEP (0.91.0), NAIA (0.88,1), DEP (0.86,1), DEP (0.81.1), DEP (0.78,1), NAIA (0.64,1)

(2) Cases with greater than 0.5 membership in term coercive*~mgt*funded*structural*~control:
NAEA (0.85,1), NAEA (0.85,1), NAEA (0.75,1), NAEA (0.75,1), NAEA (0.64,1), NAEA(0.53,1)

(3) Cases with greater than 0.5 membership in term ~coercive*normative*mgt*~funded*control:
AEA (0.95,1), AEA (0.85,1), AEA (0.71.1), AEA (0.68,0), MUN (0.62,1), MUN (0.51.1)

(4) Cases with greater than 0.5 membership in term ~coercive*normative*~mgt*funded*structural*control:
NAEA (0.7,1), NAEA (0.67,1), NAEA (0.62,1)

(5) Cases with greater than 0.5 membership in term coercive*normative*mgt*funded*structural*control:
SAEA (0.62,1), SAEA (0.62,1)

--- PARSIMONIOUS SOLUTION ---
frequency cutoff: 2.000000
consistency cutoff: 0.741047

		raw coverage	unique coverage	consistency
1.	~coercive*normative*control	0.235789	0.235790	0.783902
2.	coercive*funded*structural	0.263947	0.167105	0.908514
3.	~normative*~structural	0.184211	0.026316	0.636364
4.	coercive*~normative	0.263158	0.008421	0.714286

solution coverage: 0.692369, solution consistency: 0.755383

(1) Cases with greater than 0.5 membership in term ~coercive*normative*control:
MUN (0.95,1),NAEA (0.95,1), SAEA (0.95,1), AEA (0.95,0),AEA (0.95,1), NAEA (0.95,1), AEA (0.95,1), AEA (0.85,1), MUN (0.62,1), DEP (0.62,1),NAEA (0.62,1), SAIA (0.62,0)

(2) Cases with greater than 0.5 membership in term coercive*funded*structural: NAEA (1.1), NAEA (1.1), SAEA (1.1), NAEA (1.1),NAEA (1.1), NAEA (1.1), SAEA (1.1), NAEA (1.1), SAEA (0.82,0), SAEA (0.74,1),NAEA (0.68,1)

(3) Cases with greater than 0.5 membership in term ~normative*~structural: DEP (1.1), DEP (1.1), DEP (1.1), NAIA (1.0), NAIA (1.1), DEP (1.0), NAIA (1.1), MUN (1.0), DEP (1.1), MUN (1.1),MUN (1.0)

(4) Cases with greater than 0.5 membership in term coercive*~normative: DEP (1.1), DEP (1.1), NAEA (1.1), DEP (1.1), NAIA (1.1), DEP (1.0), SAEA (1.0), NAIA (1.1), NAEA (1.1), DEP (1.1), NAEA (1.1), MUN (1.0), NAEA (1.1), SAEA (1.0)

```
--- INTERMEDIATE SOLUTION ---
frequency cutoff: 2.000000
consistency cutoff: 0.741047

normative (present)
coercive (present)
```

Assumptions for the intermediate solution: on the basis of theoretical and empirical evidence, either the coercive or the normative condition should be always presented (see hypothesis (1) and the necessity test (2))

```
                                                            raw       unique
                                                          coverage    coverage   consistency
                                                          ----------  ----------  ----------
1.  ~structural*funded*~mgt*~normative*coercive           0.128684    0.128684    0.826014
2.  control*~funded*mgt*normative*~coercive               0.100789    0.096053    0.801255
3.  ~control*structural*funded*~mgt*coercive              0.150789    0.131316    0.943987
4.  control*structural*funded*~mgt*normative*~coercive    0.068158    0.063421    0.806854
5.  control*structural*funded*mgt*normative*coercive      0.045263    0.025790    0.971751

solution coverage: 0.469474; solution consistency: 0.869396
```

```
(1)  Cases with greater than 0.5 membership in term ~structural*funded*~mgt*~normative*coercive:
        DEP (0.92,1), DEP (0.91.0), NAIA (0.88,1), DEP (0.86,1), DEP (0.81.1), DEP (0.78,1),
        NAIA (0.64,1)

(2)  Cases with greater than 0.5 membership in term control*~funded*mgt*normative*~coercive:
        AEA (0.95,1), AEA (0.85,1), AEA (0.71.1), AEA (0.68,0), MUN (0.62,1), MUN (0.51.1)

(3)  Cases with greater than 0.5 membership in term ~control*structural*funded*~mgt*coercive:
        NAEA (0.85,1), NAEA (0.85,1), NAEA (0.75,1), NAEA (0.75,1), NAEA (0.64,1), NAEA (0.53,1)

(4)  Cases with greater than 0.5 membership in term control*structural*funded*~mgt*normative*~coercive:
        NAEA (0.7,1), NAEA (0.67,1), NAEA (0.62,1)

(5)  Cases with greater than 0.5 membership in term control*structural*funded*mgt*normative*coercive:
        SAEA (0.62,1), SAEA (0.62,1)
```

(2) Absence of AI adoption

Model: ~adoption = f(coercive, normative, managerial, funded, structural, control)

Truth Table

In this study, we used a permissive cut-off value of 0.88 for consistency on the basis of a clear gap (the next is 0.71) and a frequency threshold of 2, which corresponds to 86% of the sample population. There are no assumptions in case of intermediary solutions.

Table 18 Complete Truth Table in case of IA absence

Row	C	N	M	F	S	E	n	~adoption	Consistency
1	1	1	0	1	0	1	6	1	1.00
2	0	1	0	1	1	0	4	1	1.00
3	0	1	1	0	1	1	4	1	1.00
4	1	0	0	1	0	1	4	1	0.99
5	0	0	0	0	1	1	3	1	0.93
6	1	1	0	1	0	0	3	1	0.88
7	1	1	0	0	1	0	3	0	0.71
8	0	1	0	1	1	1	3	0	0.69
9	1	0	0	1	0	0	3	0	0.59
10	1	0	0	1	1	0	3	0	0.56
11	1	1	0	1	1	0	3	0	0.55
12	0	0	0	1	1	0	2	0	0.54
13	0	1	0	1	0	0	2	0	0.50
14	0	1	0	0	1	0	2	0	0.45
15	1	1	1	0	1	1	2	0	0.45
16	1	1	1	0	1	0	2	0	0.42
17	1	1	1	1	1	1	2	0	0.41
18	0	1	1	0	0	1	2	0	0.38
19	0	0	1	1	1	0	1		0.34
20	1	0	0	0	0	1	1		0.30
21	0	0	0	0	0	1	1		0.26
22	0	0	0	1	0	0	1		0.25
23	1	0	0	0	1	1	1		0.24
24	0	1	1	1	1	0	1		0.19
25	1	0	1	1	1	1	1		0.19
26	0	1	1	1	0	1	1		0.11
27	0	0	0	0	0	0	1		0.10
28	0	1	1	1	1	1	1		0.03
29	1	0	0	1	1	1	1		0.02
30	0	1	0	1	0	1	1		0.02
31	1	1	1	1	1	0	1		0.01
32	0	0	0	0	1	0	0		1.00
33	0	0	0	1	1	1	0		1.00
34	0	0	1	0	1	0	0		1.00

Row	C	N	M	F	S	E	n	~adoption	Consistency
35	0	0	1	0	1	1	0		1.00
36	0	0	1	1	1	1	0		1.00
37	1	0	1	0	0	1	0		0.96
38	0	0	1	0	0	1	0		0.84
39	1	0	0	0	0	0	0		0.83
40	1	0	1	0	0	0	0		0.83
41	1	1	0	0	0	1	0		0.80
42	1	1	1	0	0	1	0		0.80
43	0	0	0	1	0	1	0		0.67
44	0	0	1	1	0	1	0		0.67
45	0	0	1	1	0	0	0		0.65
46	1	1	1	1	0	0	0		0.64
47	1	1	1	1	0	1	0		0.63
48	1	0	0	0	1	0	0		0.62
49	0	1	1	1	0	0	0		0.62
50	1	0	1	0	1	1	0		0.61
51	1	0	1	0	1	0	0		0.60
52	1	1	0	0	0	0	0		0.59
53	1	1	1	0	0	0	0		0.59
54	0	0	1	0	0	0	0		0.50
55	1	1	0	0	1	1	0		0.44
56	0	1	1	0	1	0	0		0.37
57	0	1	0	0	1	1	0		0.35
58	1	0	1	1	0	1	0		0.25
59	1	0	1	1	1	0	0		0.20
60	1	0	1	1	0	0	0		0.11
61	1	1	0	1	1	1	0		0.05
62	0	1	0	0	0	0	0		0.04
63	0	1	1	0	0	0	0		0.02
64	0	1	0	0	0	1	0		0.01

Note: C = Coercive pressure; N= Normative pressure; M=Managerial autonomy; F= Financial dependance; S= Structural autonomy; E= strong External control environment.

Solution formulas in case of IA absence

```
Algorithm: Quine-McCluskey


--- COMPLEX SOLUTION ---
frequency cutoff: 2.000000
consistency cutoff: 1.000000

                                                              raw       unique
                                                             coverage  coverage    consistency
                                                             --------- ---------    -------
1.  ~coercive*~normative*~mgt*funded*structural*~control       0.05       0.05         1.00
2.  ~coercive*~normative*~mgt*~funded*structural*control       0.07       0.07         1.00

solution coverage: 0.124643
solution consistency: 1.000000



  (1) Cases with greater than 0.5 membership in term
      coercive*~normative*~mgt*funded*structural*~control:
        NAEA (0.78,1), NAEA (0.53,1)

  (2) Cases with greater than 0.5 membership in term
      ~coercive*~normative*~mgt*~funded*structural*control:
        SAEA (0.85,1), SAEA (0.62,1), NAEA (0.6,1)


--- PARSIMONIOUS SOLUTION ---
frequency cutoff: 2.000000
consistency cutoff: 1.000000

                               raw       unique
                             coverage    coverage   consistency
                            ----------  ----------  ----------
    1.  ~coercive*~normative     0.285714    0.285714    0.888889

solution coverage: 0.285714; solution consistency: 0.888889



  (1) Cases with greater than 0.5 membership in term ~coercive*~normative:
        SAEA (1.1), NAEA (1.1), SAEA (1.1), NAEA (1.1), NAIA (1.1), MUN (1.1),
        NAEA (1.1), MUN (1.0), SAEA (1.1)



--- INTERMEDIATE SOLUTION ---
frequency cutoff: 2.000000
consistency cutoff: 1.000000
Assumptions: none

                                                                raw       unique
                                                               coverage coverage consist.
                                                               --------  -------- ----
1.  control*structural*~funded*~mgt*~normative*~coercive           0.0775  0.0732  1.000
2.  ~control*structural*funded*~mgt*~normative*~coercive           0.0515  0.0471  1.000

solution coverage: 0.124643; solution consistency: 1.000000



  (1) Cases with greater than 0.5 membership in term
      control*structural*~funded*~mgt*~normative*~coercive:
        SAEA (0.85,1), SAEA (0.62,1), NAEA (0.6,1)

  (2) Cases with greater than 0.5 membership in term
      ~control*structural*funded*~mgt*~normative*~coercive:
        NAEA (0.78,1), NAEA (0.53,1)
```

5.6. Appendix " QCA solutions in case of presence and absence of IA professionalization"

Output from the FSQCA 2.0 software application is put in a different font face from the text of the dissertation.

(1) Presence of IA professionalization

```
Model: maturity = f(coercive, normative, managerial, funded, structural, control)
```

Truth Table

We used a consistency cut-off value of 0.80 because all cases above this threshold present no contradictory results, and below this value is the next relevant gap. The frequency threshold is 1 to ensure more than 80% of the cases are present in the analysis. As for the conterfactual cases, cases which haven't any coercive or normative pressure do not exist as stimulated in the intermediary solution on the basis of theory and empirical results (rows 49-64).

As for the intermediary solution, for both solution formulas (presence and absence of IA professionalization), we assume that either the coercive or the normative condition should be present in any case (on the basis of hypothesis (1), confirmed also by the test of necessity).

Table 19 Complete Truth Table in case of IA professionalization

Row	C	N	M	F	S	E	n	PRO	row consist.
1	0	1	0	1	0	1	1	1	1.00
2	0	1	1	1	1	1	1	1	0.99
3	0	1	1	0	1	1	3	1	0.98
4	1	1	0	1	0	0	1	1	0.97
5	0	1	0	1	1	1	2	1	0.84
6	1	1	1	1	1	1	2	1	0.82
7	1	1	0	1	0	1	3	1	0.80
8	1	1	1	1	1	0	1	0	0.77
9	1	0	0	1	0	0	2	0	0.75
10	0	1	1	0	0	1	2	0	0.75
11	1	0	0	1	1	0	1	0	0.73
12	1	1	1	0	1	0	1	0	0.72
13	1	0	0	1	1	1	1	0	0.71
14	1	0	0	1	0	1	1	0	0.68
15	1	1	0	1	1	0	3	0	0.68
16	0	1	0	1	1	0	2	0	0.68

Row	C	N	M	F	S	E	n	PRO	row consist.
17	1	1	1	0	1	1	1	0	0.63
18	1	1	0	0	1	0	1	0	0.59
19	0	1	0	0	0	0	0		1.00
20	0	1	0	0	0	1	0		1.00
21	0	1	0	0	1	0	0		1.00
22	0	1	0	0	1	1	0		1.00
23	0	1	0	1	0	0	0		1.00
24	0	1	1	0	1	0	0		1.00
25	0	1	1	1	0	0	0		1.00
26	0	1	1	1	0	1	0		1.00
27	1	0	0	0	0	0	0		1.00
28	1	0	0	0	0	1	0		1.00
29	1	0	0	0	1	0	0		1.00
30	1	0	0	0	1	1	0		1.00
31	1	0	1	0	0	0	0		1.00
32	1	0	1	0	0	1	0		1.00
33	1	0	1	0	1	0	0		1.00
34	1	0	1	0	1	1	0		1.00
35	1	0	1	1	0	1	0		1.00
36	1	1	0	0	0	0	0		1.00
37	1	1	0	0	0	1	0		1.00
38	1	1	0	0	1	1	0		1.00
39	1	1	0	1	1	1	0		1.00
40	1	1	1	0	0	0	0		1.00
41	1	1	1	0	0	1	0		1.00
42	1	1	1	1	0	0	0		1.00
43	1	1	1	1	0	1	0		1.00
44	1	0	1	1	0	0	0		0.95
45	0	1	1	0	0	0	0		0.89
46	1	0	1	1	1	1	0		0.85
47	0	1	1	1	1	0	0		0.82
48	1	0	1	1	1	0	0		0.78
49	0	0	0	0	0	0	0		
50	0	0	0	0	0	1	0		
51	0	0	0	0	1	0	0		
52	0	0	0	0	1	1	0		
53	0	0	0	1	0	0	0		
54	0	0	0	1	0	1	0		
55	0	0	0	1	1	0	0		
56	0	0	0	1	1	1	0		
57	0	0	1	0	0	0	0		
58	0	0	1	0	0	1	0		
59	0	0	1	0	1	0	0		
60	0	0	1	0	1	1	0		
61	0	0	1	1	0	0	0		
62	0	0	1	1	0	1	0		
63	0	0	1	1	1	0	0		
64	0	0	1	1	1	1	0		

Note: C = Coercive pressure; N= Normative pressure; M=Managerial autonomy; F= Financial dependence; S= Structural autonomy; E= strong External control environment; PRO=IA professionalization

Table 19 is the Truth Table with the outcome as IA professionalization. The first 7 rows are linked as sufficient conditions for the occurrence of sustainable IA services (A=1. row1-7. We used a consistency cut-off value of 0.80 because all cases above this threshold do not present any contradictory results. The frequency threshold is 1 since the sub-sample is much smaller than in case of IA adoption. Some show contradictory cases (A=C, row 9, 10 and 17). Finally, 8 rows are linked to unsustainable IA services (A=0. rows 9, 10 and 17).

Furthermore, the table shows that the empirical cases cover 18 combinations out of 64, so the limited diversity is much higher within this analysis than within the analysis of IA adoption. For space reasons, these rows are collapsed in the above table.

Solution formulas in the case of IA professionalization

Algorithm: Quine-McCluskey

--- COMPLEX SOLUTION ---
frequency cutoff: 1.000000
consistency cutoff: 0.795238

	raw coverage	unique coverage	consistency
1. coercive*normative*~mgt*funded*~structural	0.154	0.154	0.742
2. ~coercive*normative*~mgt*funded*control	0.164	0.084	0.894
3. ~coercive*normative*mgt*structural*control	0.305	0.164	0.984
4. normative*mgt*funded*structural*control	0.226	0.086	0.913

solution coverage: 0.630174 ; solution consistency: 0.869245

(1) Cases with greater than 0.5 membership in term coercive*normative*~mgt*funded*~structural: DEP (0.88,0.33), DEP (0.81.0.67), DEP (0.78,0.67), NAIA (0.64,0.67)

(2) Cases with greater than 0.5 membership in term ~coercive*normative*~mgt*funded*control: NAEA (0.67,0.67), NAEA (0.62,0.33), DEP (0.53,0.67)

(3) Cases with greater than 0.5 membership in term~coercive*normative*mgt*structural*control: SAEA (0.95,1), AEA (0.95,1), AEA (0.85,1), AEA (0.71.0.67)

(4) Cases with greater than 0.5 membership in term normative*mgt*funded*structural*control: SAEA (0.95,1), SAEA (0.62,0.33), SAEA (0.62,0.67)

--- PARSIMONIOUS SOLUTION ---
frequency cutoff: 1.000000
consistency cutoff: 0.795238

	raw coverage	unique coverage	consistency
1. ~coercive*structural*control	0.328	0.164	0.852
2. normative*funded*control	0.437	0.093	0.820
3. normative*~mgt*~structural	0.236	0.020	0.815
4. normative*funded*~structural	0.228	0.005	0.650

solution coverage: 0.670895; solution consistency: 0.771297

(1) Cases with greater than 0.5 membership in term ~coercive*structural*control: SAEA (0.95,1), NAEA (0.95,0.67), AEA (0.95,0.67), AEA (0.95,1), AEA (0.85,1), NAEA(0.62,0.33)

(2) Cases with greater than 0.5 membership in term normative*funded*control: SAEA (0.95,1), NAEA (0.95,0.67), DEP (0.95,0.67), DEP (0.62,0.33), NAEA (0.62,0.33), SAEA (0.62,0.33), DEP (0.62,0.67), SAEA (0.62,0.67), DEP (0.62,0.67)

(3) Cases with greater than 0.5 membership in term normative*~mgt*~structural: DEP (0.88,0.33), DEP (0.81.0.67), DEP (0.78,0.67), NAIA (0.64,0.67), DEP (0.53,0.67)

(4) Cases with greater than 0.5 membership in term normative*funded*~structural: DEP (1.0.33), DEP (1.0.67), DEP (1.0.67), DEP (0.99,0.67), NAIA (0.86,0.67)

```
--- INTERMEDIATE SOLUTION ---
frequency cutoff: 1.000000
consistency cutoff: 0.795238
Assumptions:
normative (present)
coercive (present)
```

	raw coverage	unique coverage	consistency
1. control*funded*~mgt*normative	0.323	0.061	0.870
2. control*structural*funded*normative	0.257	0.046	0.817
3. ~structural*funded*~mgt*normative*coercive	0.154	0.042	0.742
4. control*structural*mgt*normative*~coercive	0.305	0.164	0.984

solution coverage: 0.637517; solution consistency: 0.848889

(1) Cases with greater than 0.5 membership in term control*funded*~mgt*normative: DEP (0.81.0.67), NAEA (0.67,0.67), DEP (0.62,0.33), NAEA (0.62,0.33), DEP (0.62,0.67),DEP (0.53,0.67)

(2) Cases with greater than 0.5 membership in term control*structural*funded*normative: SAEA (0.95,1), NAEA (0.95,0.67), NAEA (0.62,0.33), SAEA (0.62,0.33), SAEA (0.62,0.67)

(3) Cases with greater than 0.5 membership in term ~structural*funded*~mgt*normative*coercive: DEP (0.88,0.33), DEP (0.81.0.67), DEP (0.78,0.67), NAIA (0.64,0.67)

(4) Cases with greater than 0.5 membership in term control*structural*mgt*normative*~coercive: SAEA (0.95,1), AEA (0.95,1), AEA (0.85,1), AEA (0.71.0.67)

(2) Absence of IA professionalization

```
Model: ~maturity = f(coercive, normative, managerial, funded, structural, control)
```

Truth Table

In this study, we used a permissive cut-off value of 0.75 or consistency, so that all types of case labels are included in the formula analysis and a frequency threshold of 1 to ensure 80% of the sample population is analysed.

Table 20 Complete Truth Table in case of the absence of IA professionalization

Row	C	N	M	F	S	E	n	~PRO	Consistency
1	1	0	0	1	0	1	1	1	1.00
2	1	0	0	1	1	0	1	1	1.00
3	1	0	0	1	1	1	1	1	1.00
4	1	1	0	0	1	0	1	1	1.00
5	0	1	0	1	1	0	2	1	0.97
6	1	1	1	0	1	0	1	1	0.95
7	1	1	1	1	1	0	1	1	0.89
8	1	1	1	0	1	1	1	1	0.87
9	0	1	1	0	0	1	2	1	0.84
10	1	1	1	1	1	1	2	1	0.82
11	1	1	0	1	1	0	3	1	0.81
12	0	1	0	1	1	1	2	1	0.79
13	0	1	0	1	0	1	1	1	0.78
14	1	0	0	1	0	0	2	1	0.76
15	1	1	0	1	0	0	1	1	0.75
16	1	1	0	1	0	1	3	0	0.63
17	0	1	1	1	1	1	1	0	0.56
18	0	1	1	0	1	1	3	0	0.16
19	0	1	0	0	0	0	0		1.00
20	0	1	1	0	0	0	0		1.00
21	1	0	0	0	0	0	0		1.00
22	1	0	0	0	0	1	0		1.00
23	1	0	0	0	1	0	0		1.00
24	1	0	0	0	1	1	0		1.00
25	1	0	1	0	0	0	0		1.00
26	1	0	1	0	0	1	0		1.00
27	1	0	1	0	1	0	0		1.00
28	1	0	1	0	1	1	0		1.00
29	1	0	1	1	0	0	0		1.00
30	1	0	1	1	0	1	0		1.00
31	1	0	1	1	1	0	0		1.00
32	1	0	1	1	1	1	0		1.00
33	1	1	0	0	0	0	0		1.00
34	1	1	0	0	0	1	0		1.00
35	1	1	0	0	1	1	0		1.00
36	1	1	0	1	1	1	0		1.00

Row	C	N	M	F	S	E	n	~PRO	Consistency
37	1	1	1	0	0	0	0		1.00
38	1	1	1	0	0	1	0		1.00
39	1	1	1	1	0	1	0		1.00
40	0	1	1	1	1	0	0		0.96
41	1	1	1	1	0	0	0		0.96
42	0	1	1	1	0	0	0		0.92
43	0	1	0	1	0	0	0		0.92
44	0	1	1	1	0	1	0		0.84
45	0	1	0	0	0	1	0		0.77
46	0	1	0	0	1	1	0		0.71
47	0	1	0	0	1	0	0		0.46
48	0	1	1	0	1	0	0		0.34
49	0	0	0	0	0	0	0		
50	0	0	0	0	0	1	0		
51	0	0	0	0	1	0	0		
52	0	0	0	0	1	1	0		
53	0	0	0	1	0	0	0		
54	0	0	0	1	0	1	0		
55	0	0	0	1	1	0	0		
56	0	0	0	1	1	1	0		
57	0	0	1	0	0	0	0		
58	0	0	1	0	0	1	0		
59	0	0	1	0	1	0	0		
60	0	0	1	0	1	1	0		
61	0	0	1	1	0	0	0		
62	0	0	1	1	0	1	0		
63	0	0	1	1	1	0	0		
64	0	0	1	1	1	1	0		

Note: C = Coercive pressure; N= Normative pressure; M=Managerial autonomy; F= Financial dependence; S= Structural autonomy; E= strong External control environment; PRO=IA professionalization

Solution formulas in the case of absence of IA professionalization

```
       --- COMPLEX SOLUTION ---
frequency cutoff: 1.000000
consistency cutoff: 0.751724
```

	raw coverage	unique coverage	consist.
1. **coercive*~mgt*funded*~control**	**0.407**	**0.077**	**0.808***
2. coercive*~normative*~managerial*funded	0.195	0.034	0.778
3. coercive*normative*structural*~control	0.323	0.024	0.731
4. coercive*normative*mgt*structural	0.282	0.057	0.718
5. ~coercive*normative*~mgt*funded*control	0.154	0.022	0.786
6. ~coercive*normative*mgt*~funded*~structural*control	0.068	0.039	0.842
7. **normative*~mgt*funded*structural*~control**	**0.279**	**0.000**	**0.863***
8. ~coercive*normative*~mgt*funded*structural	0.149	0.001	0.843

solution coverage: 0.895863; solution consistency: 0.725592

(1) Cases with greater than 0.5 membership in term coercive*~mgt*funded*~control: NAEA (0.85,0.67), DEP (0.75,0.33), NAEA (0.75,0.67), NAIA (0.64,0.33), NAIA (0.64,0.67), NAEA (0.64,0.33), NAEA (0.53,0.67)

(2) Cases with greater than 0.5 membership in term coercive*~normative*~mgt*funded: DEP (0.92,0.67), DEP (0.86,0.33), NAIA (0.64,0.67), NAEA (0.57,0.67), NAEA (0.53,0.67)

(3) Cases with greater than 0.5 membership in term coercive*normative*structural*~control: SAEA (0.95,0.67), SAEA (0.95,0.67), NAEA (0.95,0.67), NAEA (0.95,0.33), AEA (0.75,0.67), NAEA (0.75,0.67)

(4) Cases with greater than 0.5 membership in term coercive*normative*mgt*structural: AEA (0.95,0.67), SAEA (0.95,0.33), AEA (0.95,0.67), SAEA (0.89,0.67), SAEA (0.79,0.67)

(5) Cases with greater than 0.5 membership in term ~coercive*normative*~mgt*funded*control: NAEA (0.67,0.33), NAEA (0.62,0.67), DEP (0.53,0.33)

(6) Cases with greater than 0.5 membership in term ~coercive*normative*mgt*~funded*~structural*control: MUN (0.62,0.67), MUN (0.51.0.33)

(7) Cases with greater than 0.5 membership in term normative*~mgt*funded*structural*~control: NAEA (0.85,0.67), NAEA (0.75,0.67), NAEA (0.64,0.33), NAEA (0.6,0.67), NAEA (0.53,0.67)

(8) Cases with greater than 0.5 membership in term ~coercive*normative*~mgt*funded*structural: NAEA (0.67,0.33), NAEA (0.64,0.67), NAEA (0.6,0.67), NAEA (0.53,0.67)

```
--- PARSIMONIOUS SOLUTION ---
frequency cutoff: 1.000000
consistency cutoff: 0.751724
```

	raw coverage	unique coverage	consistency
1. ~control	0.758	0.041	0.748
2. ~normative	0.214	0.020	0.602
3. ~coercive*~structural	0.094	0.020	0.443
4. ~coercive*~managerial	0.232	0.055	0.793
5. coercive*managerial	0.449	0.009	0.799
6. coercive*structural	0.477	-0.000	0.608

solution coverage: 0.964337; solution consistency: 0.607640

(1) Cases with greater than 0.5 membership in term ~control: SAEA (0.95,0.67), SAEA (0.95,0.67), NAEA (0.95,0.67), <u>NAIA (0.95,0.33)</u>, NAIA (0.95,0.67), <u>NAEA (0.95,0.33)</u>, NAEA (0.75,0.67), NAEA (0.75,0.67), <u>DEP (0.75,0.33)</u>, NAEA (0.75,0.67), AEA (0.75,0.67), NAEA (0.75,0.67)

(2) Cases with greater than 0.5 membership in term ~normative: DEP (1.0.67), NAEA (1.0.67), <u>DEP (1.0.33)</u>, NAIA (1.0.67), NAEA (1.0.67)

(3) Cases with greater than 0.5 membership in term ~coercive*~structural: <u>MUN (1.0.33)</u>, <u>DEP (1.0.33)</u>, MUN (1.0.67)

(4) Cases with greater than 0.5 membership in term ~coercive*~mgt: NAEA (0.67,0.33), NAEA (0.64,0.67), NAEA (0.6,0.67), NAEA (0.53,0.67), <u>DEP (0.53,0.33</u>)

(5) Cases with greater than 0.5 membership in term coercive*mgt: AEA (0.95,0.67), <u>SAEA (0.95,0.33)</u>, AEA (0.95,0.67), SAEA (0.89,0.67), SAEA (0.79,0.67)

(6) Cases with greater than 0.5 membership in term coercive*structural: NAEA (1.0.67), SAEA (1.0.67), SAEA (1.0.67), SAEA (1.0.67), AEA (1.0.67), <u>SAEA (1.0.33)</u>, NAEA (1.0.67), NAEA (1.0.67), <u>NAEA (1.0.33)</u>, NAEA (1.0.67),AEA (1.0.67)

```
--- INTERMEDIATE SOLUTION ---
frequency cutoff: 1.000000
consistency cutoff: 0.751724
Assumptions:
normative (present)
coercive (present)
```

	raw coverage	unique coverage	consist.
1. funded*~mgt*~normative*coercive	0.195	0.034	0.778
2. ~control*funded*~mgt*coercive	0.407	0.077	0.808
3. ~control*structural*normative*coercive	0.323	0.024	0.731
4. structural*mgt*normative*coercive	0.282	0.057	0.718
5. control*funded*~mgt*normative*~coercive	0.154	0.022	0.786
6. control*~structural*~funded*mgt*normative*~coercive	0.068	0.039	0.842
7. structural*funded*~mgt*normative*~coercive	0.149	0.001	0.843
8. ~control*structural*funded*~mgt*normative	0.279	0.000	0.863

solution coverage: 0.895863; solution consistency: 0.725592

(1) Cases with greater than 0.5 membership in term funded*~mgt*~normative*coercive: DEP (0.92,0.67), <u>DEP (0.86,0.33)</u>, NAIA (0.64,0.67), NAEA (0.57,0.67), NAEA (0.53,0.67)

(2) Cases with greater than 0.5 membership in term ~control*funded*~mgt*coercive: NAEA (0.85,0.67), <u>DEP (0.75,0.33)</u>, NAEA (0.75,0.67), <u>NAIA (0.64,0.33)</u>, NAIA (0.64,0.67), <u>NAEA (0.64,0.33)</u>, NAEA (0.53,0.67)

(3) Cases with greater than 0.5 membership in term ~control*structural*normative*coercive: SAEA (0.95,0.67), SAEA (0.95,0.67), NAEA (0.95,0.67), <u>NAEA (0.95,0.33</u>), AEA (0.75,0.67), NAEA (0.75,0.67)

(4) Cases with greater than 0.5 membership in term structural*mgt*normative*coercive: AEA (0.95,0.67), <u>SAEA (0.95,0.33)</u>, AEA (0.95,0.67), SAEA (0.89,0.67), SAEA (0.79,0.67)

(5) Cases with greater than 0.5 membership in term control*funded*~mgt*normative*~coercive: <u>NAEA (0.67,0.33</u>), NAEA (0.62,0.67), <u>DEP (0.53,0.33)</u>

(6) Cases with greater than 0.5 membership in term control*~structural*~funded*mgt*normative*~coercive: MUN (0.62,0.67), <u>MUN (0.51.0.33)</u>

(7) Cases with greater than 0.5 membership in term structural*funded*~mgt*normative*~coercive: <u>NAEA (0.67,0.33</u>), NAEA (0.64,0.67), NAEA (0.6,0.67), NAEA (0.53,0.67)

(8) Cases with greater than 0.5 membership in term ~control*structural*funded*~mgt*normative: NAEA (0.85,0.67), NAEA (0.75,0.67), <u>NAEA (0.64,0.33)</u>, NAEA (0.6,0.67), NAEA (0.53,0.67)

5.7. Appendix “IIA BEL 2010 national public sector” (in French)

GLOBAL AUDIT INFORMATION NETWORK
Validate Your Direction

Enquête 2010 sur l'audit interne dans les entités publiques belges

Résultats préliminaires

Introduction

En juin 2010, l'Institut des Auditeurs Internes (IIA), conjointement avec l'Université Catholique de Louvain et l'Université de Gand, a envoyé un questionnaire au sujet de l'audit interne auprès des entités publiques belges au niveau des autorités fédérales, dans les Communautés et Régions et au niveau des pouvoirs locaux.

Cette enquête avait pour objectif d'avoir, pour la première fois en Belgique, des statistiques sur l'état des lieux du contrôle interne et de l'audit interne auprès des organismes publics belges, et ce aux différents niveaux d'autorités publiques. Le questionnaire était adressé aux entités qui disposaient d'un service d'audit interne et à celles qui n'en disposaient pas. Par ailleurs, cette étude permettra de déterminer les critères de maturité les plus pertinents à utiliser en vue d'établir ultérieurement un modèle d'auto-évaluation concernant les niveaux de compétence des départements d'audit interne, adapté au contexte public belge[136].

[136] Un groupe de travail au sein de l'IIABEL sera constitué pour développer le modèle.

L'enquête a couvert des questions à choix multiples dans les domaines suivants:

I. les caractéristiques de l'organisation ;
II. l'environnement/état du contrôle interne dans l'organisation ;
III. le profil de l'activité d'audit interne dans l'organisation ;
IV. la gouvernance du service d'audit interne ; et
V. les pratiques professionnelles du service d'audit interne.

Le questionnaire a été envoyé par voie électronique à la grande majorité des organisations reprises dans le listing global des entités publiques constitué par le service Comptes Nationaux/Régionaux et Conjoncture au sein de la Banque Nationale de Belgique[137], ainsi que les provinces et les communes comprenant 30.000 habitants ou plus. Au total 592 organisations ont été contactées avec un taux global de réponses de 21%. Ce sont les responsables ou leurs collaborateurs dans le domaine du contrôle interne ou de l'audit interne qui ont principalement répondu au questionnaire au nom de leur organisation.

Les points les plus marquants des résultats de l'enquête sont repris ci-dessous, par domaine.

1. *Caractéristiques de l'organisation :*

   La majorité des répondants proviennent des autorités régionales et communautaires (42%), suivi des autorités locales (32%). Deux tiers des participants représentent des entités publiques décentralisées.

   Plus de la moitié des organisations de l'enquête ont plus de 15 ans d'existence (58%) et plus de 200 personnes (69%).

2. *Environnement du contrôle interne dans l'organisation :*

   La plupart des organisations de notre enquête (82%) déclarent avoir un cadre réglementaire portant sur leurs dispositifs du contrôle interne.

   La sensibilité aux risques semble être présente dans un peu plus de la moitié des organisations (56%), mais il est intéressant de noter qu'un tiers environ des participants (34%) déclarent n'avoir aucune activité concrète dans ce domaine, et seuls 10% des répondants ont une fonction de risque séparée dans l'organigramme.

   40% des participants disposent d'un cadre règlementaire pour la création de l'audit interne. Dans le cas où la fonction n'existe pas, le manque de moyens, le faible niveau de maturité du contrôle interne et la valeur ajoutée sont cités comme étant les raisons principales de cette inexistence.

3. *Le profil de l'activité d'audit interne dans l'organisation :*

   Pour l'ensemble des organisations qui exercent une activité d'audit interne, un auditeur est en moyenne présent par tranche de 544 employés. Cette mesure est à prendre avec réserve car cette proportion diminue considérablement pour les organisations comprenant plusieurs milliers d'employés.

   Les missions d'assurance occupent la plus grande part des activités (56%) et sont principalement orientées vers les audits opérationnels, de performance et de qualité.

   Le recrutement des auditeurs internes s'effectuerait en général en interne.

4. *La gouvernance des services d'audit interne :*

[137] Voir le document de Banque Nationale de Belgique, « Les unités du secteur public ; mise à jour au 30.09.2009 », établi sur base du secteur S.13 dans le SEC95.

57% des départements d'audit interne ont un Comité d'audit. Un peu plus d'un tiers des Comités d'audit (38%) auraient des auditeurs internes parmi leurs membres.

Les participants déclarent généralement que la coordination entre leurs Comités d'audit et les agents du contrôle interne/externe est faible.

Les mécanismes de collaboration privilégiés entre les services d'audit interne et les agents du contrôle externe seraient l'échange des rapports d'audit (65%) et la coordination des plans d'audit (45%). L'appui de ces agents sur les travaux d'audit interne semblerait être marginal (18%).

Des réunions régulières et l'appui sur le travail de l'audit interne seraient les mécanismes de collaboration les plus souvent utilisés entre les services d'audit interne et du contrôle interne.

Un peu plus de la moitié des services d'audit interne (56%) déclarent avoir obtenu la signature de la direction générale de l'organisation sur leurs documents officiels relatifs à leur mandat.

La plupart des services d'audit interne déclarent avoir une activité entièrement indépendante et objective.

5. *Les pratiques professionnelles des services d'audit interne :*

   64% des participants sont membres de l'IIA.

   En matière de bonnes pratiques pour gérer et professionnaliser les services d'audit interne, la plupart des départements d'audit interne déclarent avoir mis en œuvre les outils recommandés et appliquer les standards IIA de manière satisfaisante ; seules les pratiques vis-à-vis de la gestion du personnel seraient les moins appliquées (38%).

   L'ensemble des résultats préliminaires de l'enquête sont détaillés dans le document de synthèse.

Diane van Gils	Johan Christiaens	Rudi Hex
Doctorante UCL	Prof. Université de Gand	Président IIA Belgium

AVERTISSEMENT :

Ce compte-rendu a été rédigé à l'attention des membres de l'IIABEL et des entités publiques qui ont participé à l'enquête. Il vise à donner un aperçu rapide et succinct des résultats préliminaires de l'enquête. L'analyse approfondie des résultats fait actuellement l'objet d'une thèse de doctorat, dirigée par les Professeurs *Christian de Visscher* et *Gerrit Sarens* à l'Université Catholique de Louvain, et financée grâce à un mécénat de la Banque Nationale de Belgique. Le présent document peut dès lors être ultérieurement revu et approfondi dans le cadre d'une publication de l'IIABEL ou de séminaires tenant compte de ces résultats de recherche.

Nous tenons à remercier la *Direction générale opérationnelle des Pouvoirs locaux, Action sociale et Santé du Service public de Wallonie*, la *Société Wallonne de l'Evaluation et de la Prospective* (SWEP), et l'*Interne Audit van de Vlaamse Administratie* (IAVA) qui nous ont donné leur soutien afin de contacter la majorité des organisations de l'enquête à leur niveau d'autorité respectif, ainsi que toutes les entités qui ont répondu au questionnaire.

REMERCIEMENTS :

Nos remerciements vont également aux membres du groupe de travail de ce projet, en particulier *Jean-Michel Cassier, Jan Creemers, Pedro Facon, Pascaline Godefroid, Olivier Filot, Philip Mariscal, Marc Vandersmissen, Christophe Vanhee, Pascale Vandenbussche, Josiane Van Waesberghe et Marie-Louise Volvert,* ainsi qu'aux Promoteurs de la thèse de Diane van Gils, pour leur soutien et conseil en vue de mener à bien ce projet. N'oublions pas aussi l'équipe GAIN Knowledge Center de l'Institute of Internal Auditors, en particulier M. *Michael Scotchie*, pour avoir fourni et géré efficacement l'accès électronique de l'enquête, ainsi que tout le staff de l'IABEL pour son excellent et dévoué support administratif tout au long de ce projet.

Table des matières

Chiffres-clés de l'enquête

L'environnement/état du contrôle interne dans l'organisation ;

- √ 82% des entités publiques ont un cadre réglementaire relatif aux dispositifs du contrôle interne à mettre en place
- √ 52% des organisations utilisent les référentiels COSO[138]/INTOSAI
- √ 40% des organisations ont un mandat légal pour la mise en place d'une activité d'audit interne dans leur organisation
- √ 34% des organisations déclarent n'avoir aucune activité en relation avec la gestion des risques
- √ 47 % des répondants n'ont pas encore une activité d'audit interne dans leur organisation ou sont en phase de l'implémenter

Le profil de l'activité d'audit interne dans l'organisation

- √ 45% des auditeurs internes proviennent d'un département interne à leur organisation ; cette proportion augmente si c'est un responsable en audit interne
- √ 30% des responsables n'ont aucune expérience en audit interne avant d'occuper leur fonction actuelle
- √ 54% des auditeurs internes sont sous le régime des statuts de la fonction publique
- √ Pour l'ensemble des organisations qui disposent d'une activité d'audit interne, celles-ci comptent en moyenne un auditeur interne par tranche de 544 employés. Cette proportion diminue considérablement pour les organisations disposant de plusieurs milliers d'employés
- √ La moitié des services d'audit interne ont un coût global de 200 000 € ou moins (frais de fonctionnement, salaires, formations, projets, consultance, *etc.*). Le coût global moyen pour un auditeur interne est de 96 000 € par an
- √ 67% des services d'audit interne ont recours à de la sous-traitance privée, avec une moyenne de 0,18 équivalent temps plein par an
- √ Chaque année, un auditeur interne consacre en moyenne 45 heures à un programme de formation continue

La gouvernance du service d'audit interne

- √ 57% des services d'audit interne ont un comité d'audit, avec une moyenne de 3 à 5 membres. Les deux tiers ont un mandat légal pour sa création
- √ 52% des services d'audit interne ont un crédit budgétaire formel pour financer leurs activités d'audit interne

Les pratiques professionnelles du service d'audit interne.

- √ 37% des services d'audit interne ne mesurent pas le taux d'implémentation de leurs recommandations
- √ 64% des services d'audit interne sont membres de l'IIABEL
- √ 62 % des services d'audit interne déclarent appliquer les standards IIA de manière satisfaisante
- √ 80% environ des services d'audit interne ont une charte d'audit interne
- √ 73% des services d'audit interne adhèrent à un code de déontologie
- √ Le plan d'audit comporte en moyenne 78% d'actions planifiées
- √ 47% des services d'audit interne ont déjà effectué une évaluation externe

[138] Les référentiels COSO 1 et COSO 2 n'ont pas été distingués dans l'enquête

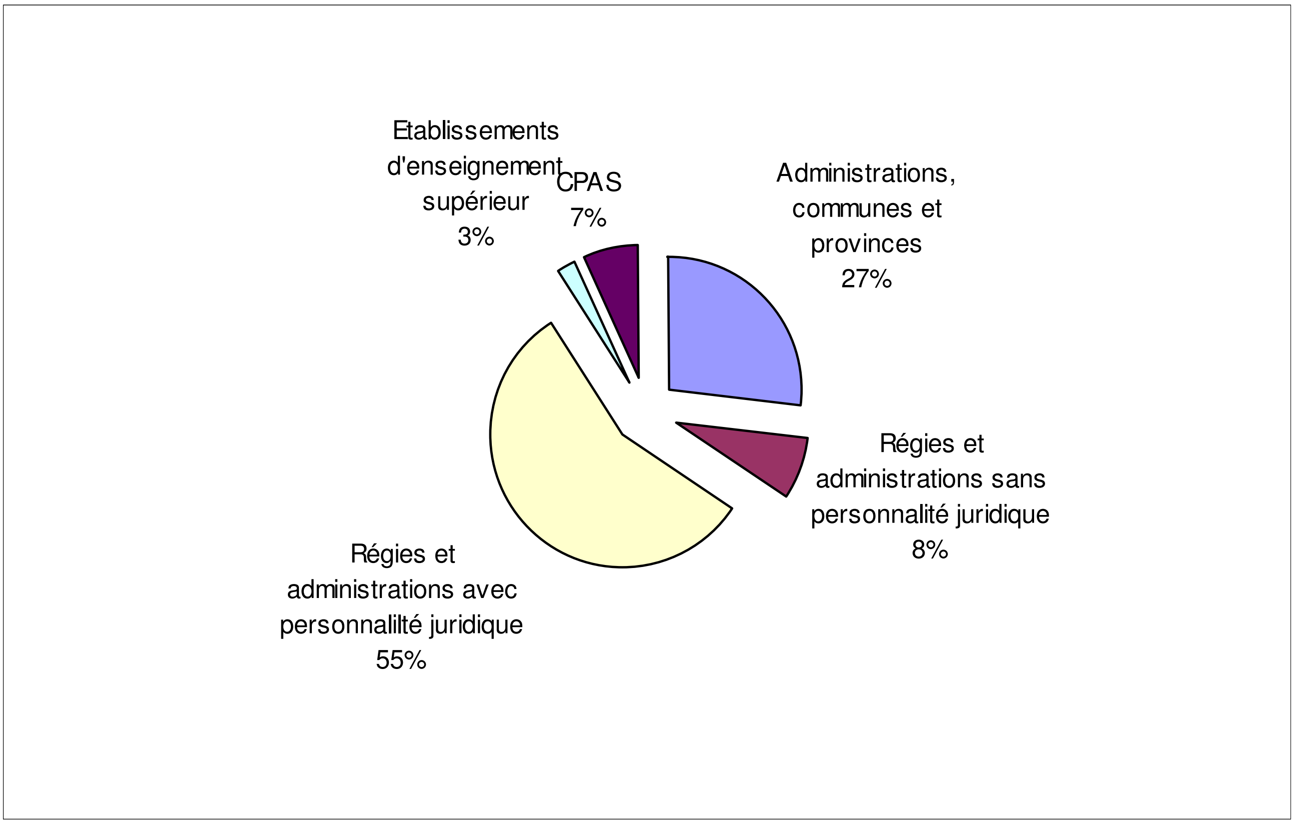
6. Description de l'échantillon

6.1. Niveaux d'autorités publiques

	Echantillon	Taux de réponses	Taux de représentation dans l'échantillon	Taux de représentation dans la population
Fédéral	32	36%	26%	15%
Administration flamande	28	26%	23%	18%
Région wallonne	13	37%	11%	6%
Région Bruxelles Capitale	3	14%	2%	4%
Communauté française	7	33%	6%	4%
Local Wallonie	18	17%	16%	17%
Local Flandre	16	10%	13%	27%
Local Bruxelles	4	8%	3%	9%
	121	21%	100%	100%

- Les entités publiques appartenant au Fédéral, à l'Administration flamande et à la Région wallonne sont sur-représentées dans notre échantillon par rapport à la population réelle.
- Les entités publiques des pouvoirs locaux flamands et bruxellois sont largement sous-représentées dans notre échantillon.

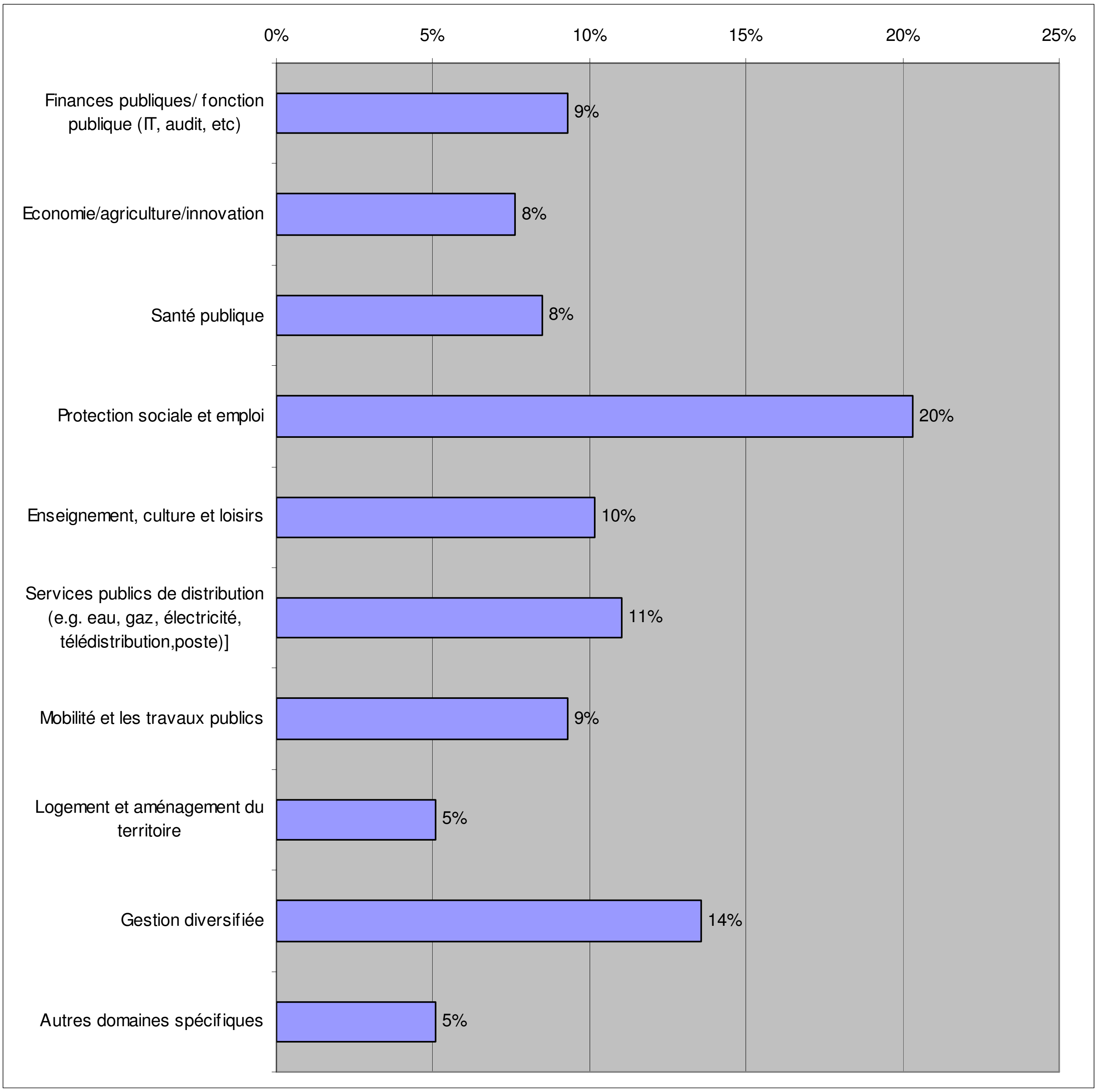
6.2. Statut juridique



- L'échantillon est bien diversifié en types d'organismes publics, sauf au niveau des pouvoirs locaux flamands où seuls les communes et CPAS ont répondu à l'enquête.

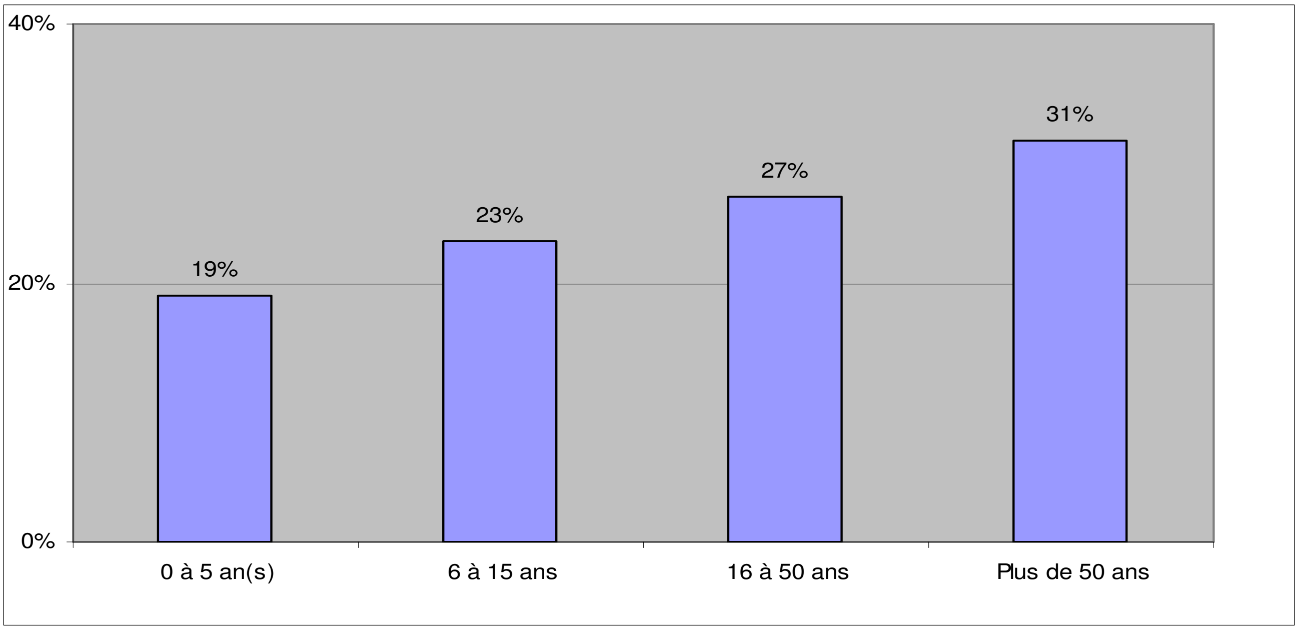
6.3.Secteur d'activités principal de l'organisation

« Quel est le secteur d'activités principal dans lequel travaille votre organisation? »



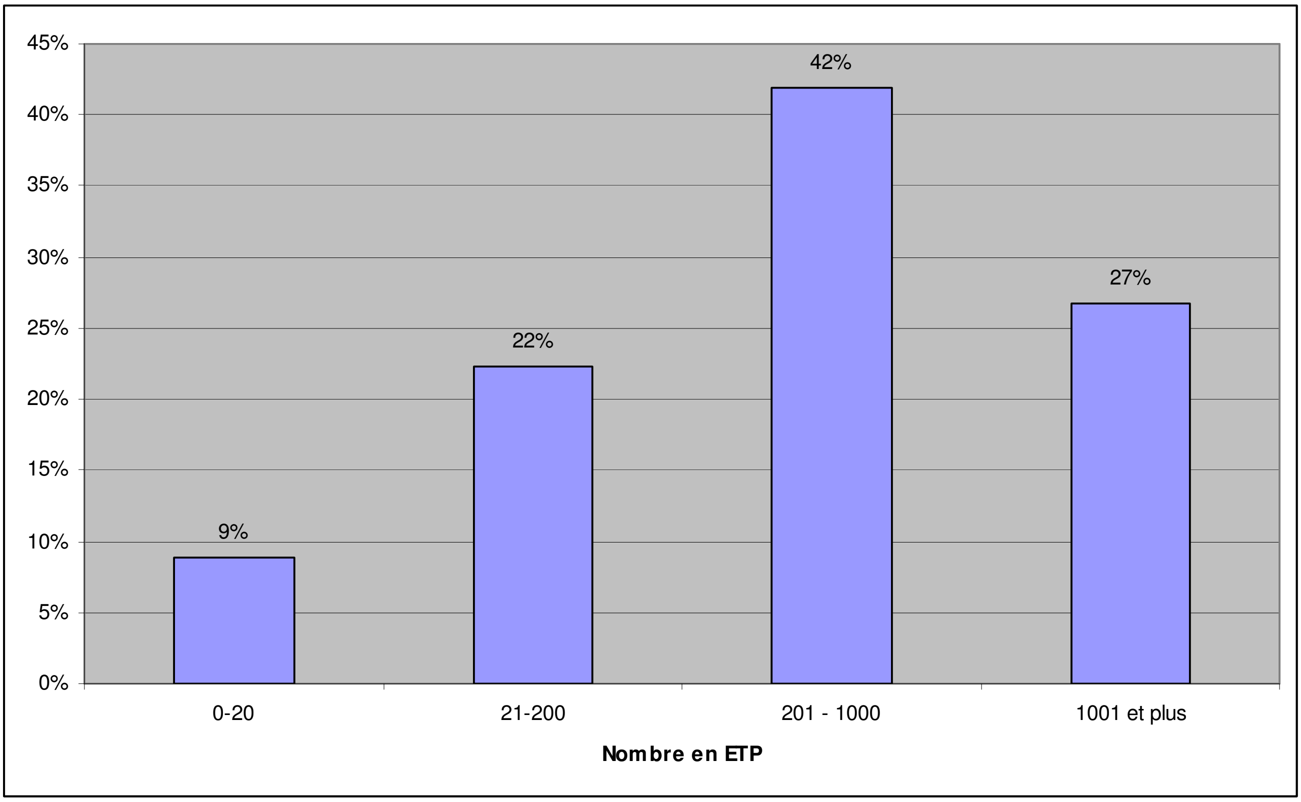
6.4. Ancienneté des organisations

« Quelle est l'ancienneté de votre organisation (avec son statut juridique actuel)? »



6.5. Effectif du personnel en 2010

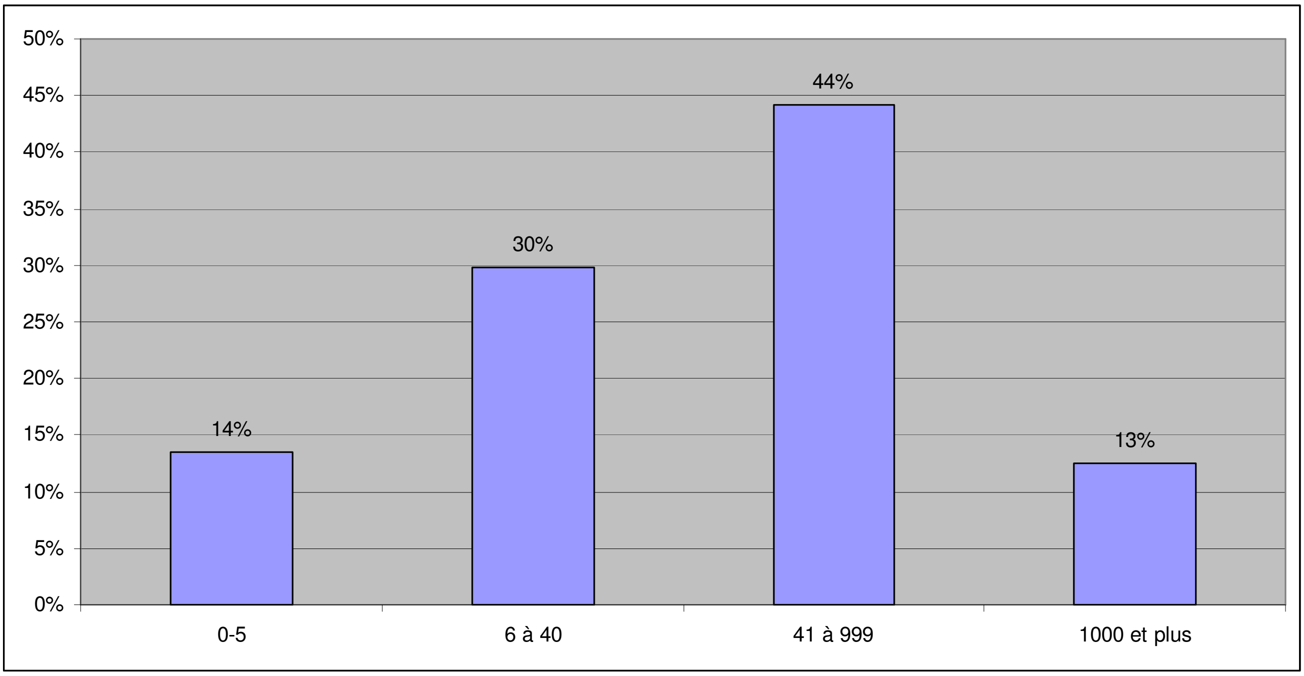
De manière approximative, quel est l'effectif actuel de votre organisation en équivalent(s) temps plein?



- La moitié des organisations ont 350 ETP ou moins. Le maximum est de 29 400 ETP.

6.6. Budget annuel des organisations en millions d'€

Quel est le montant du budget annuel total dont dispose votre organisation pour 2010? Le budget annuel total comprend par exemple le budget de fonctionnement, les investissements, les projets, ...

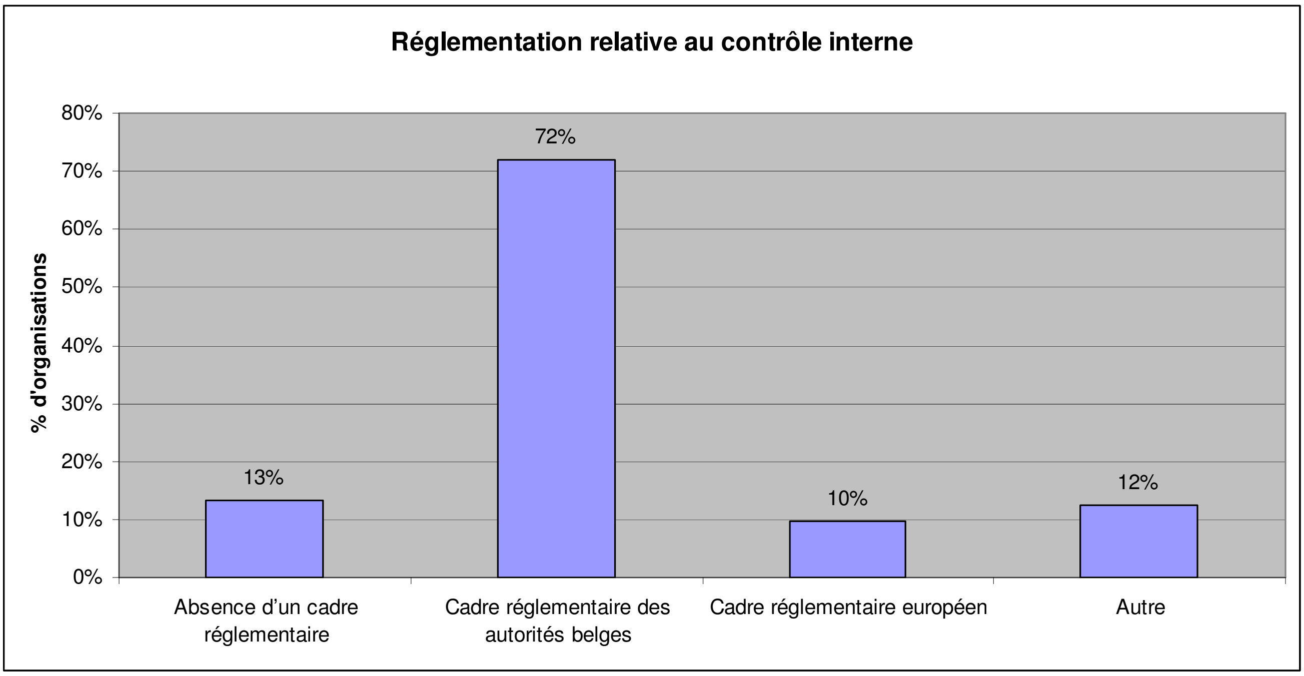


- Les budgets varient de 0,2 à 33 531 millions d'euros, avec une moyenne de 1 089 millions d'euros.
- La moitié des organisations ont 71,5 millions d'euros ou moins.

7. Environnement / état du contrôle interne de l'organisation

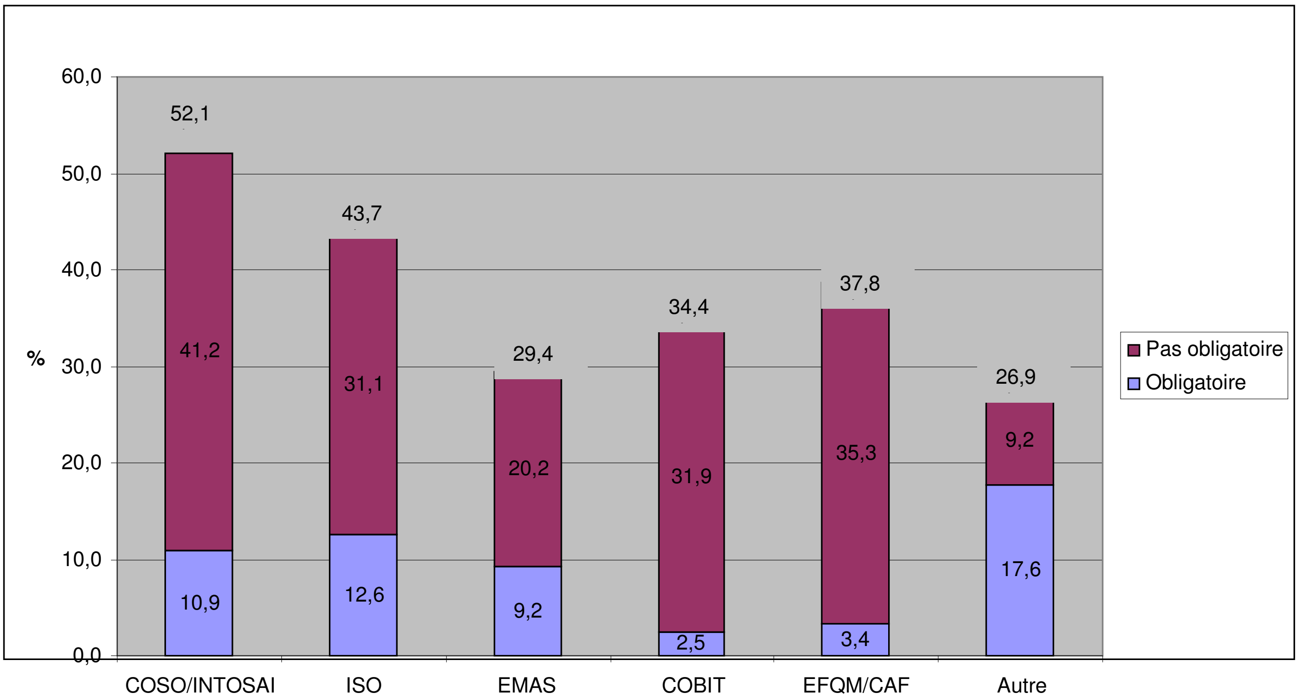
Réglementation relative au contrôle interne

« Si votre organisation est soumise à un cadre réglementaire lui imposant explicitement de mettre en place des dispositifs de contrôle interne, veuillez préciser quel(s) type(s) de réglementation. »



7.1. Référentiels utilisés.

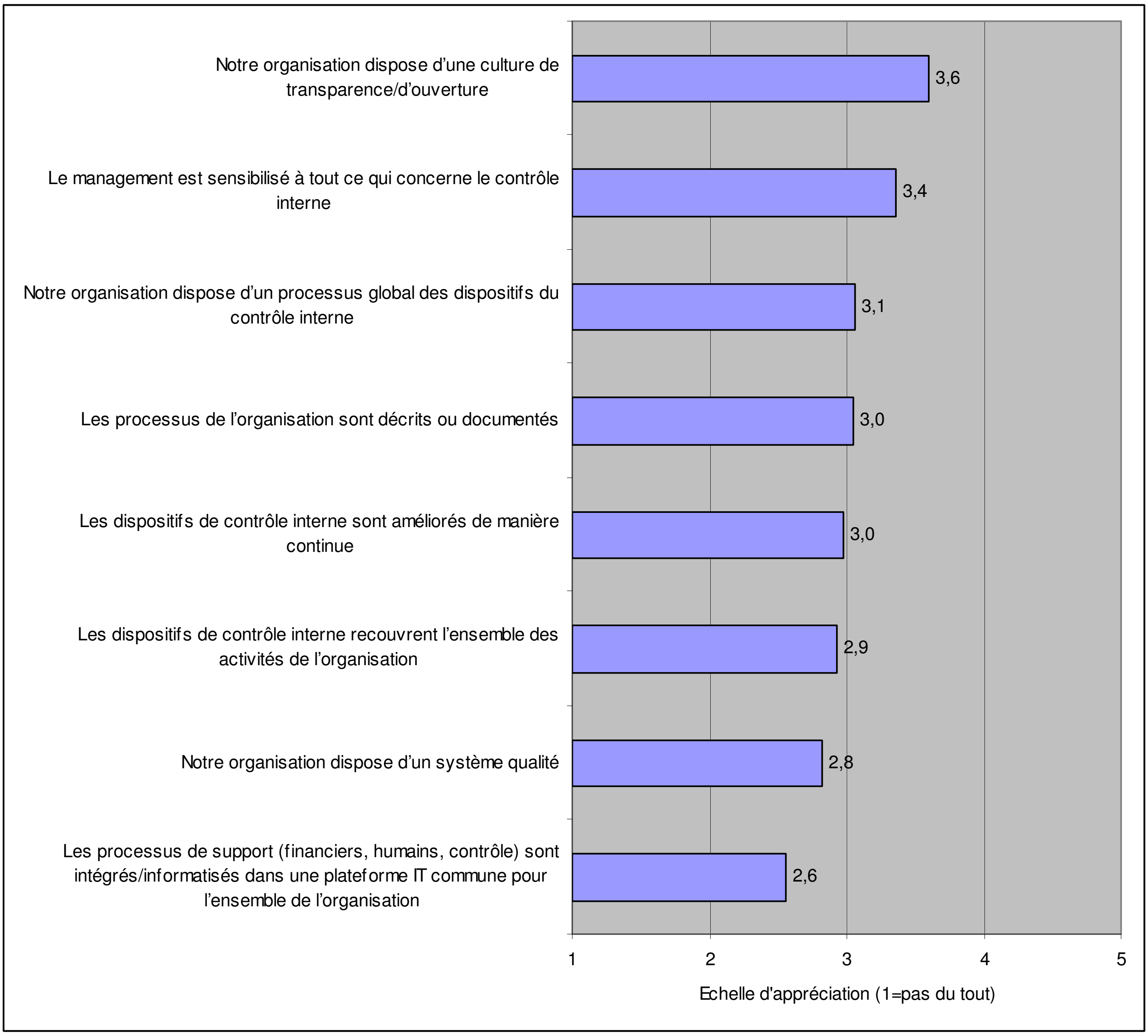
« Quels sont les référentiels généralement utilisés dans le cadre des activités du contrôle interne au sein de votre organisation?»



- En ce qui concerne les « Autres référentiels utilisés », quelques organisations déclarent utiliser aussi les standards FN, ITIL, ainsi que d'autres standards plus sectoriels, par exemple dans les domaines de la comptabilité et de la qualité de l'enseignement. Des standards "administratifs" tels ceux mentionnés dans le cadre organique de certaines organisations et le modèle d'auto-évaluation *"Leidraad Interne Controle en Organisatiebeheersing"* développé par l'IAVA à l'attention des départements et organisations de l'Administration flamande, ont également été cités plusieurs fois.

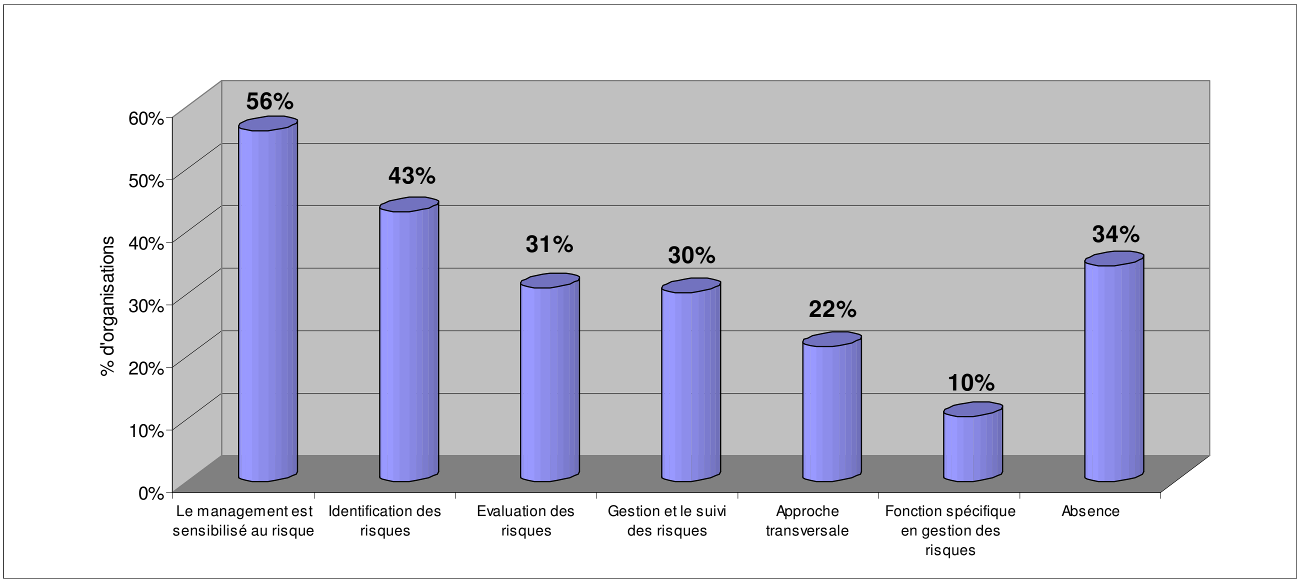
7.2. Etat/culture du contrôle interne

« Quelle est votre appréciation qui caractérise au mieux, selon vous, la situation actuelle dans votre organisation ? »


Notre organisation dispose d'une culture de transparence/d'ouverture
3,6
Le management est sensibilisé à tout ce qui concerne le contrôle interne
3,4
Notre organisation dispose d'un processus global des dispositifs du contrôle interne
3,1
Les processus de l'organisation sont décrits ou documentés
3,0
Les dispositifs de contrôle interne sont améliorés de manière continue
3,0
Les dispositifs de contrôle interne recouvrent l'ensemble des activités de l'organisation
2,9
Notre organisation dispose d'un système qualité
2,8
Les processus de support (financiers, humains, contrôle) sont intégrés/informatisés dans une plateforme IT commune pour l'ensemble de l'organisation
2,6
1
2
3
4
5
Echelle d'appréciation (1=pas du tout)

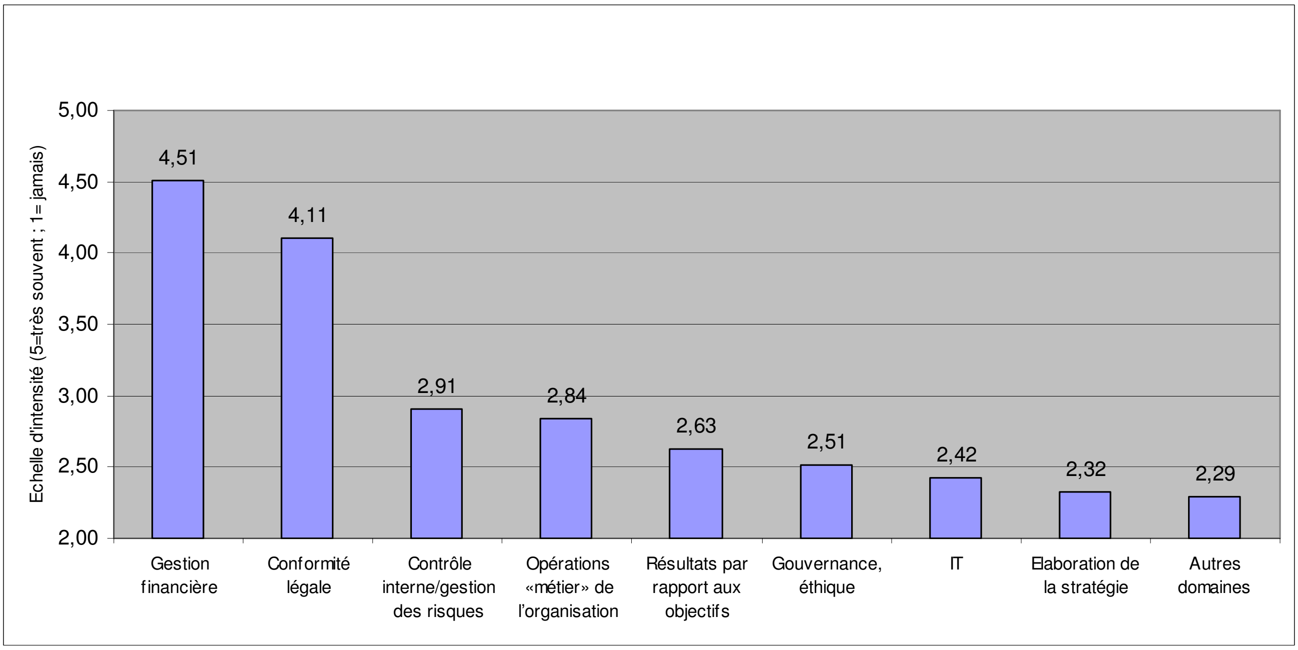
7.3. La gestion des risques

Dans quelle mesure votre organisation a-t-elle une fonction de la gestion des risques? Veuillez cocher les réponses qui correspondent à la situation de votre organisation.



7.4. Périmètre du contrôle externe

Dans quelle mesure les domaines de l'organisation mentionnés ci-dessous sont-ils audités par les acteurs du contrôle externe?



- Parmi les autres domaines audités par les acteurs du contrôle externe, quelques organisations ont cité les subsides européens, l'approbation ou la gestion de projets et des contrôles très sectoriels, par exemple la sécurité dans les domaines sportifs ou la qualité de l'enseignement.

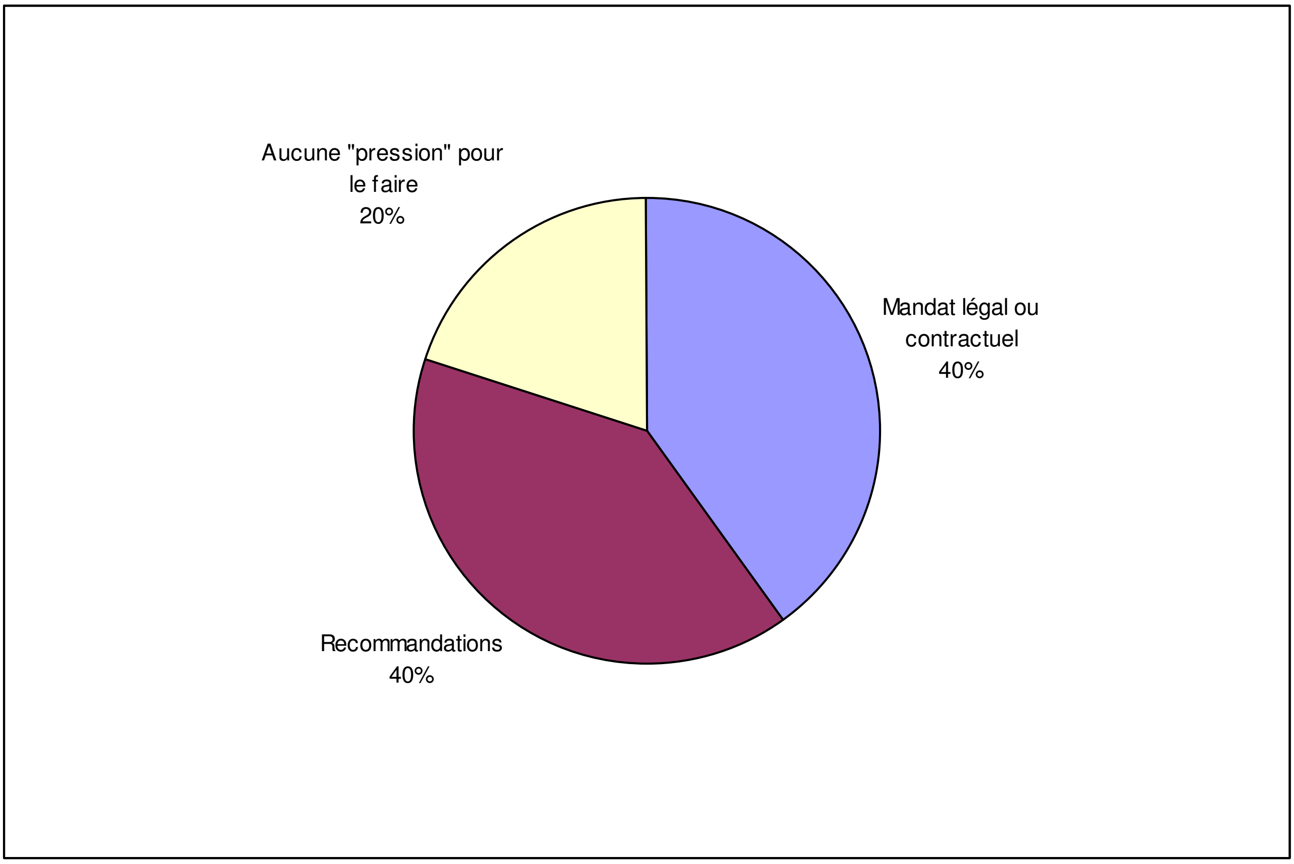
8. Profil de l'activité d'audit interne dans votre organisation

8.1. Présence d'une Activité d'Audit Interne (AAI)

Par «Activité d'Audit Interne», on entend un service, une fonction ou un responsable qui gère une activité d'audit interne dans l'organisation, ou une activité d'audit interne qui est sous-traitée partiellement ou entièrement.

Mandat relatif à l'audit interne

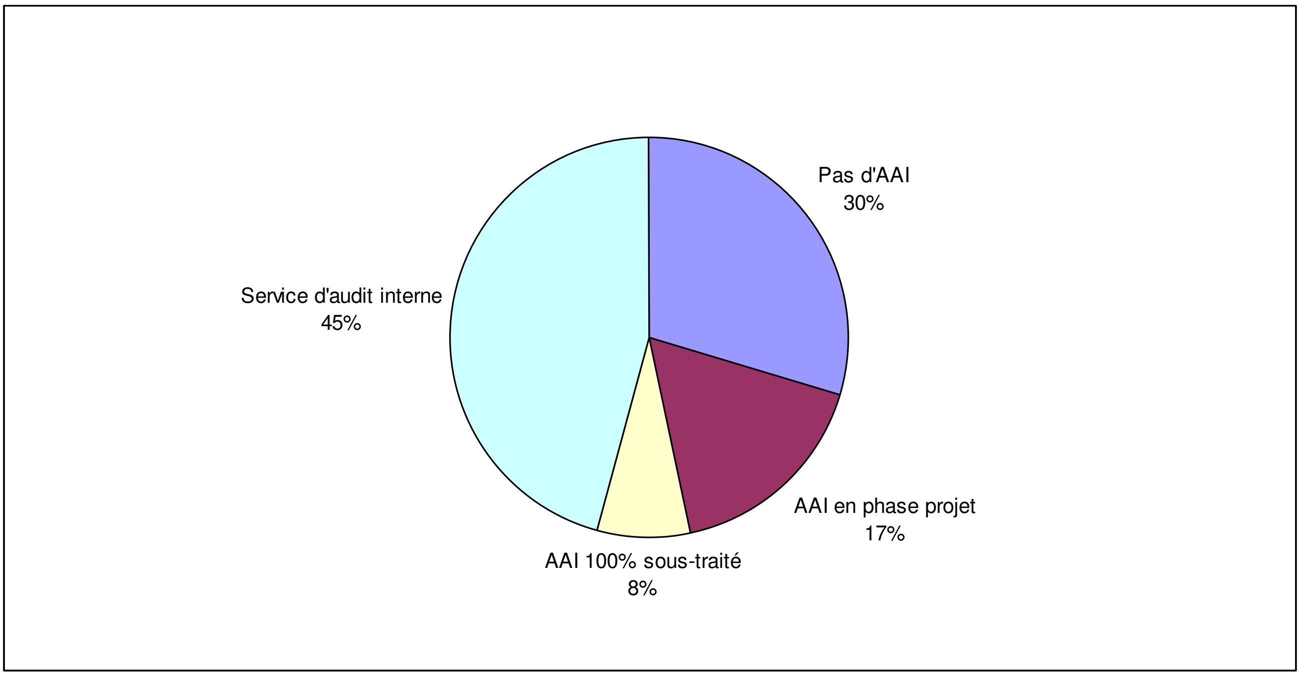
« Qui recommande principalement la mise en place d'une activité d'audit interne dans votre organisation? »



- 40% des organisations déclarent aussi que l'activité d'audit interne est recommandée, principalement par le management dans un souci de professionalisation de l'organisation.
- 10% des organisations précisent aussi que des acteurs du contrôle externe, en particulier les réviseurs d'entreprises, suivi des auditeurs de la Cour des comptes, leur recommandent aussi la mise en œuvre d'une activité d'audit interne. Certaines normes ISO ou EMAS sont également citées en tant que sources des recommandations.

Existence d'une AAI

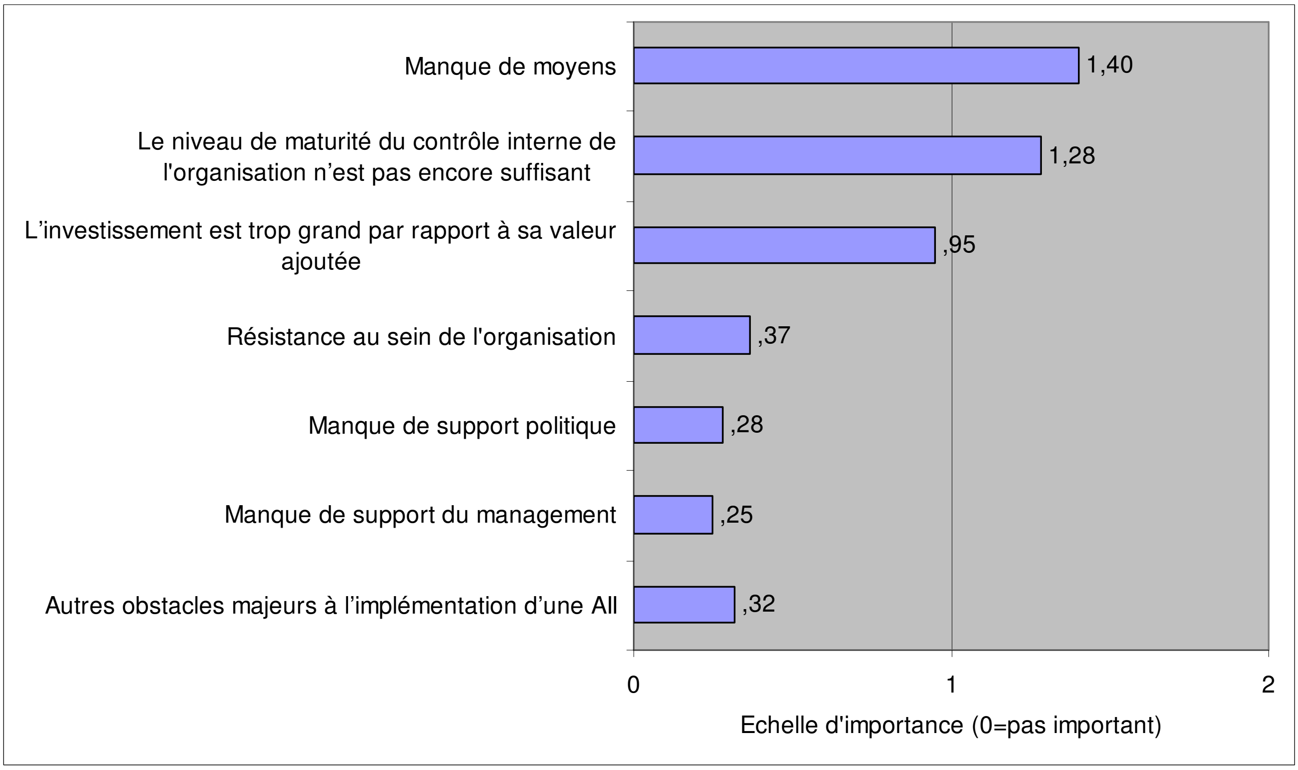
« Sous quelle forme votre organisation assure-t-elle une activité d'audit interne proprement dite? »



- Un tiers des organisations déclare n'avoir aucune activité d'audit interne. A cela s'ajoutent 17% qui ont lancé un projet pour le faire. Au total, 47% d'organisations n'ont pas encore une activité d'audit interne proprement dite.
- Les deux tiers des projets qui visent la mise en œuvre d'une activité d'audit interne ont démarré en 2010. La moitié de ces projets ont été signalés dans un document officiel de leur organisation. 10% de ces projets ont recours à la sous-traitance. En moyenne 1,2 équivalent temps plein a été prévu pour leur première année d'existence.
- 53% des organisations déclarent avoir concrètement une activité d'audit interne, soit une organisation sur deux. Il serait utile d'insister sur le fait que ce taux serait probablement moins élevé dans la réalité. En effet, ces résultats seraient sans doute fort biaisés par le fait que ce sont probablement les organisations qui ont (ou désirent avoir) une activité d'audit interne qui auraient été les plus motivées à participer à cette enquête qui les concerne davantage.
- Pour les 8% des organisations qui sous-traitent entièrement leurs activités d'audit interne, celles-ci sont essentiellement effectuées par des entités publiques, à savoir l'IAVA et AUDIO respectivement pour l'Administration et les autorités locales flamandes, et, le service d'audit interne du ministère de la Communauté française. La sous-traitance privée à 100% est donc exceptionnelle (un seul cas dans notre échantillon).
- En ce qui concerne les services d'audit interne proprement dits, 10% de ces services déclarent effectuer de l'audit interne à la fois dans leur organisation et dans d'autres entités publiques (de 1 à 68 organisations).

Obstacles à l'implémentation d'un service d'audit interne

« Si vous n'avez pas encore mis en oeuvre une activité d'audit interne, quels sont, selon vous, les obstacles majeurs qui empêcheraient votre organisation d'adopter une activité d'audit interne?»



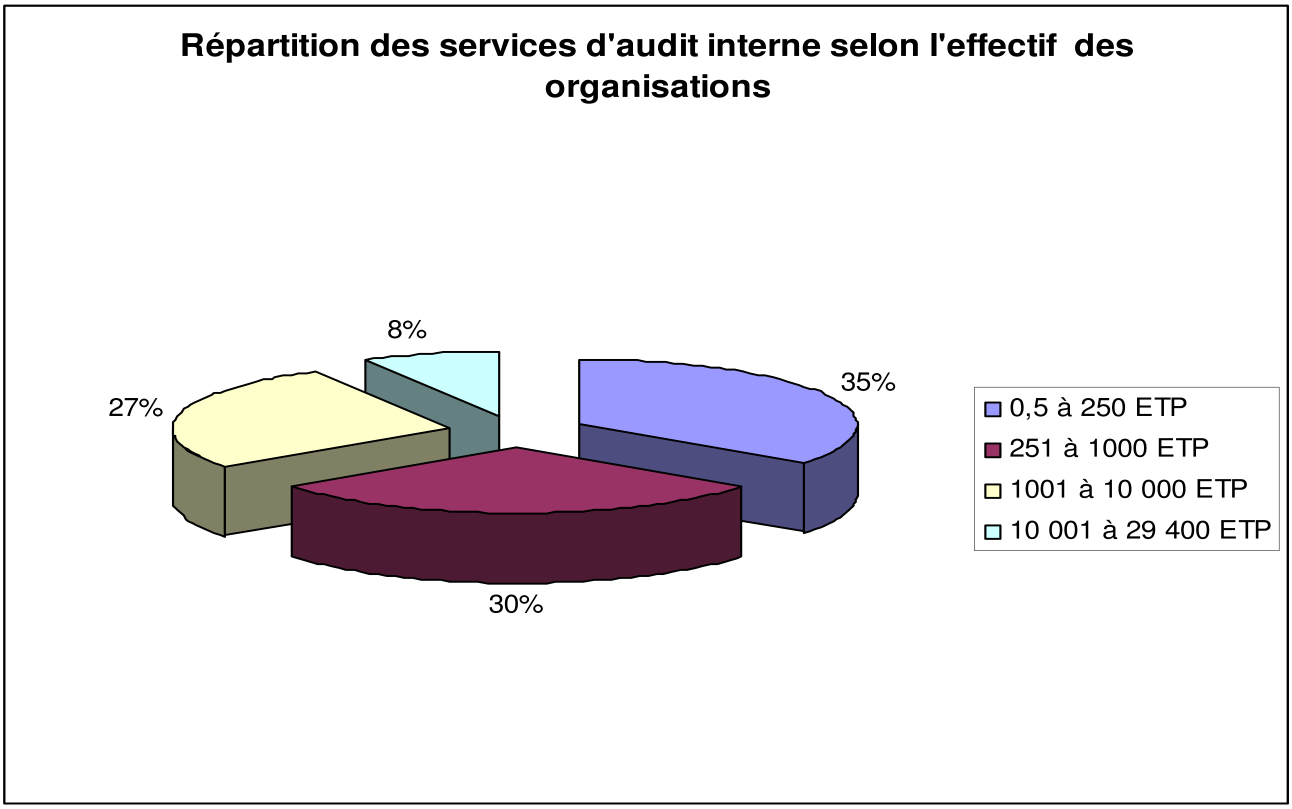
- Les 47 % des organisations qui n'ont pas encore mis en place une AAI déclarent que les trois principaux obstacles qui empêcheraient d'en adopter sont les suivants par ordre d'importance :
    - Le manque de moyens ;
    - Le niveau de maturité du contrôle interne de leur organisation n'est pas suffisant ;
    - La valeur ajoutée de l'audit interne n'est pas bien perçue au sein de leur organisation (soit parce que la taille de l'organisation est trop petite, soit parce qu'il y aurait souvent une duplication des activités avec les missions relatives au contrôle externe, soit parce que l'activité d'audit interne en tant que fonction n'est pas encore bien comprise en interne).

8.2. Taille/capacité de l'Activité d'audit interne

Ancienneté de l'activité d'audit interne

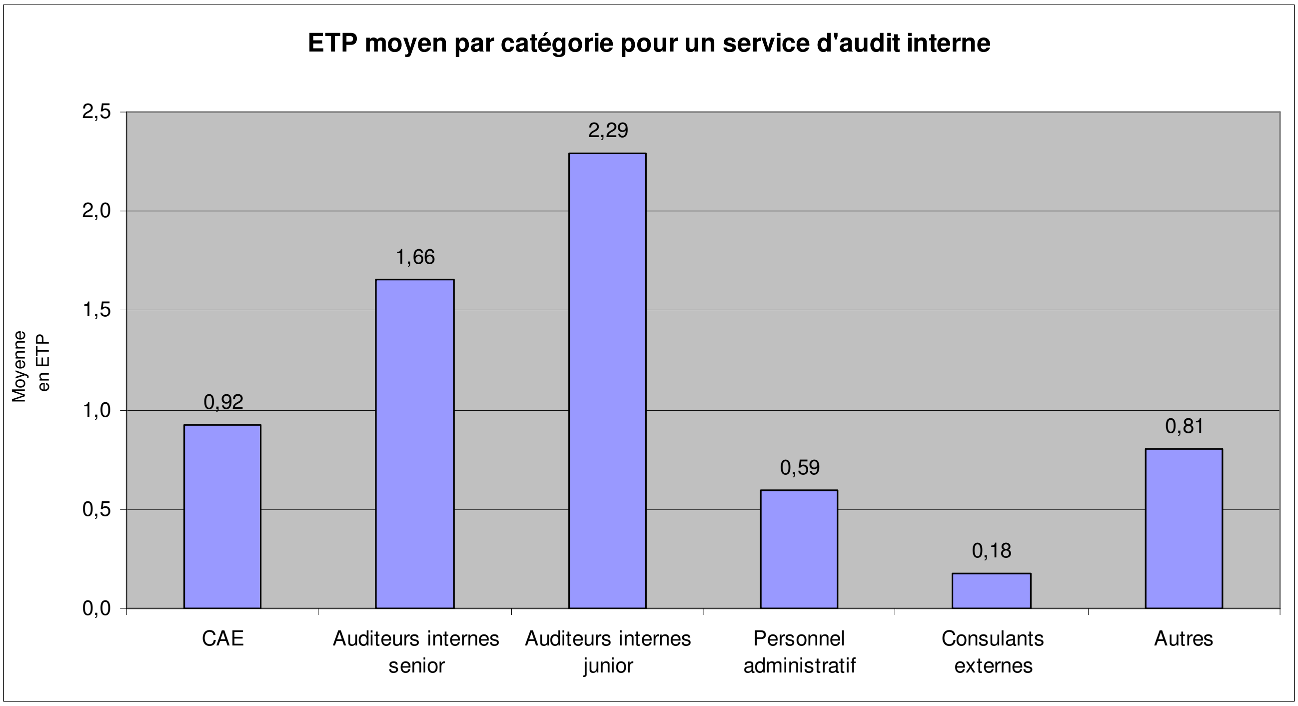
- Les services d'audit interne ont de 1 à 20 ans d'ancienneté, avec une moyenne de 6,5 années.
- 54% de ces services ont 5 ans ou moins.

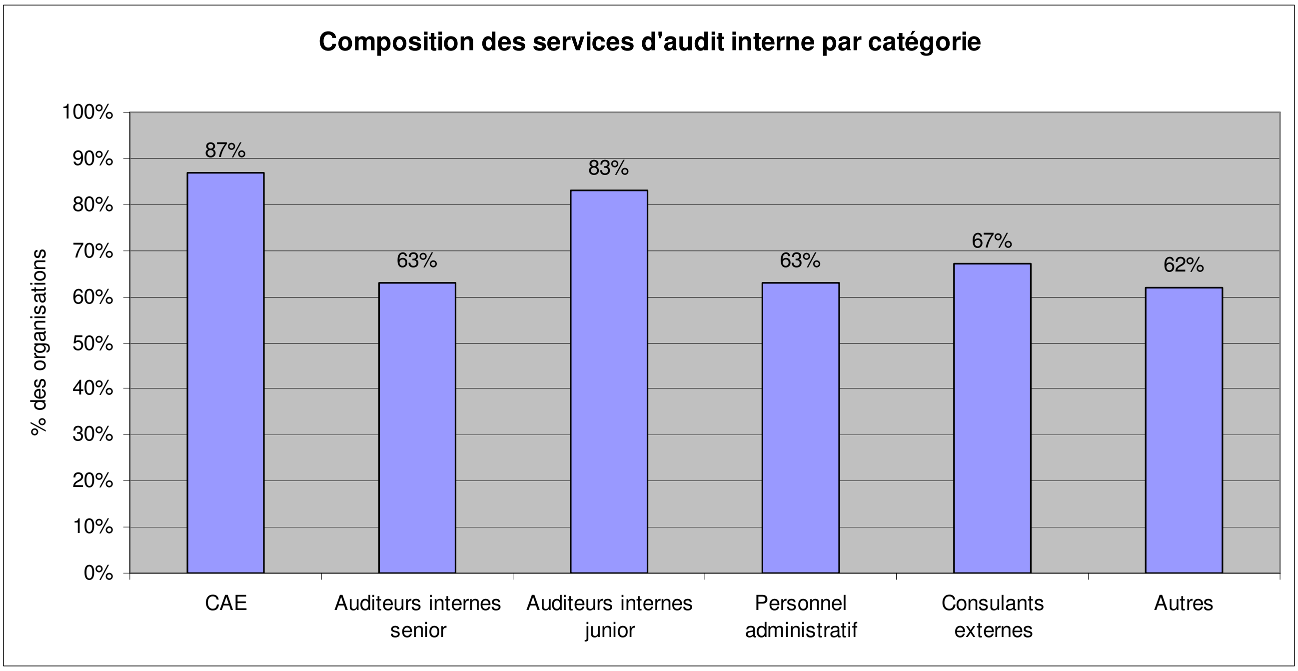
Effectif pour les services d'audit interne



• 65% des organisations qui ont une activité d'audit interne comptent 1000 employés ou moins.

« Combien d'effectif(s) compte votre activité d'audit interne en 2010? Veuillez indiquer pour chaque catégorie le nombre d'effectif(s) en équivalent(s) temps plein. »





Effectif moyen

- En ce qui concerne l'effectif moyen comprenant toutes les catégories sauf le personnel administratif, la moyenne est de 5,7 ETP par département d'audit interne.
- En ce qui concerne l'effectif moyen en termes d'auditeurs internes au sens stricto sensu (sans la sous-traitance ni les autres catégories), les services d'audit interne oscillent entre 0,2 à 30 ETP avec une moyenne générale de 4,8 ETP. 60 % de ces services ont une moyenne de 3 auditeurs internes.
- Pour l'ensemble des organisations qui disposent d'un service d'audit interne, celles-ci comptent en moyenne un auditeur interne stricto sensu par tranche de 544 employés. Cette proportion diminue considérablement avec les organisations disposant de plusieurs milliers d'employés.

Sous-traitance privée dans les services d'audit interne

- 67% des organisations sous-traitent des auditeurs internes provenant du secteur privé, avec une moyenne de 0,18 ETP par an.
- Une minorité (6%) utilise un à quatre consultants externes par an.

Coût annuel des services d'audit interne en 2010

« *Quel est le montant des moyens budgétaires prévus en 2010 pour tous les besoins en rapport avec la mission de votre activité d'audit interne (fonctionnement/salaires du personnel, formation, logistique, projets, sous-traitance, comité d'audit, …)* »

- Remarque : L'enquête a révélé un taux de non-réponses assez élevé (43%). Cette situation s'expliquerait par le fait que la majorité des services d'audit interne qui n'ont pas répondu à cette question ont déclaré qu'ils n'ont pas vraiment de budget explicite qui leur est attribué, ce qui nécessitait de la part d'une grande majorité de répondants d'effectuer une estimation basée uniquement sur les salaires et frais de formation. D'autres organisations ne voulaient pas indiquer le montant pour des raisons de confidentialité. En conclusion, les montants budgétaires ci-dessous sont basés sur 57 % des cas observés et sont donc à prendre avec beaucoup de réserve.

- Le coût global annuel des services d'audit interne varie de 5 000 € à 4 000 000 €, avec une moyenne globale de 560 000 €.
- La moitié des organisations ont un coût global de 200 000 € ou moins.
- Le coût global moyen pour un auditeur interne est de 96 000 € par an.

Pourcentage des recommandations implémentées

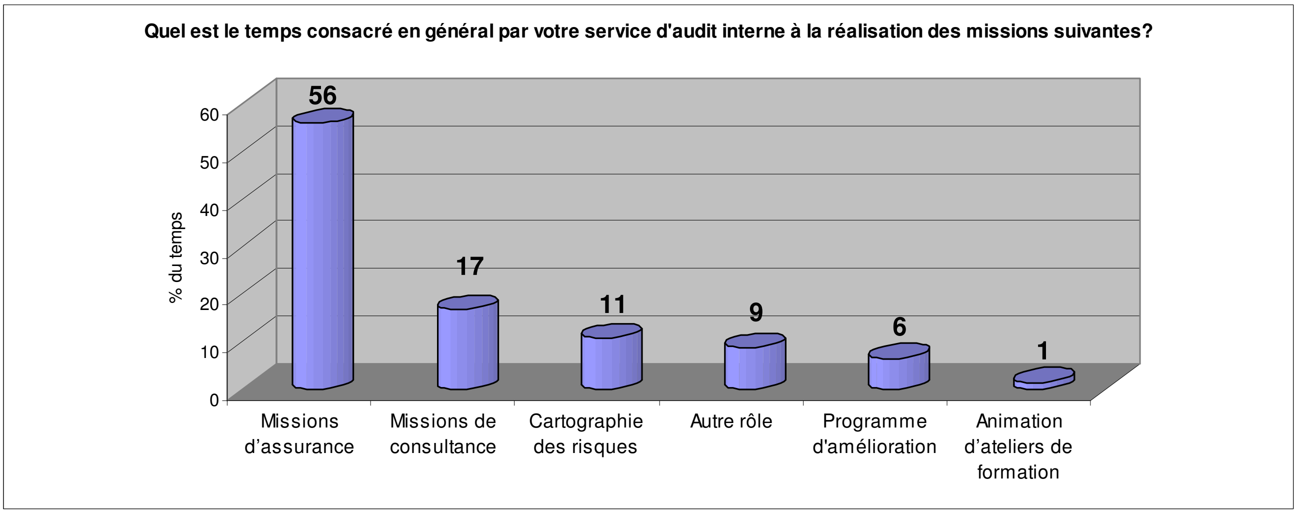
« Veuillez indiquer en pourcentage une estimation du taux des recommandations qui ont été effectivement implémentées approximativement 1 an après une mission d'audit. »

- 37% des services d'audit interne ne mesurent pas le taux d'implémentation de leurs recommandations.
- En moyenne, **66%** des recommandations ont été effectivement implémentées 1 an après une mission d'audit.
- Un peu plus d'un tiers des services d'audit interne ont un taux de recommandations supérieur à 75%.

8.3. Missions de l'auditeur interne

Rôles de l'auditeur interne

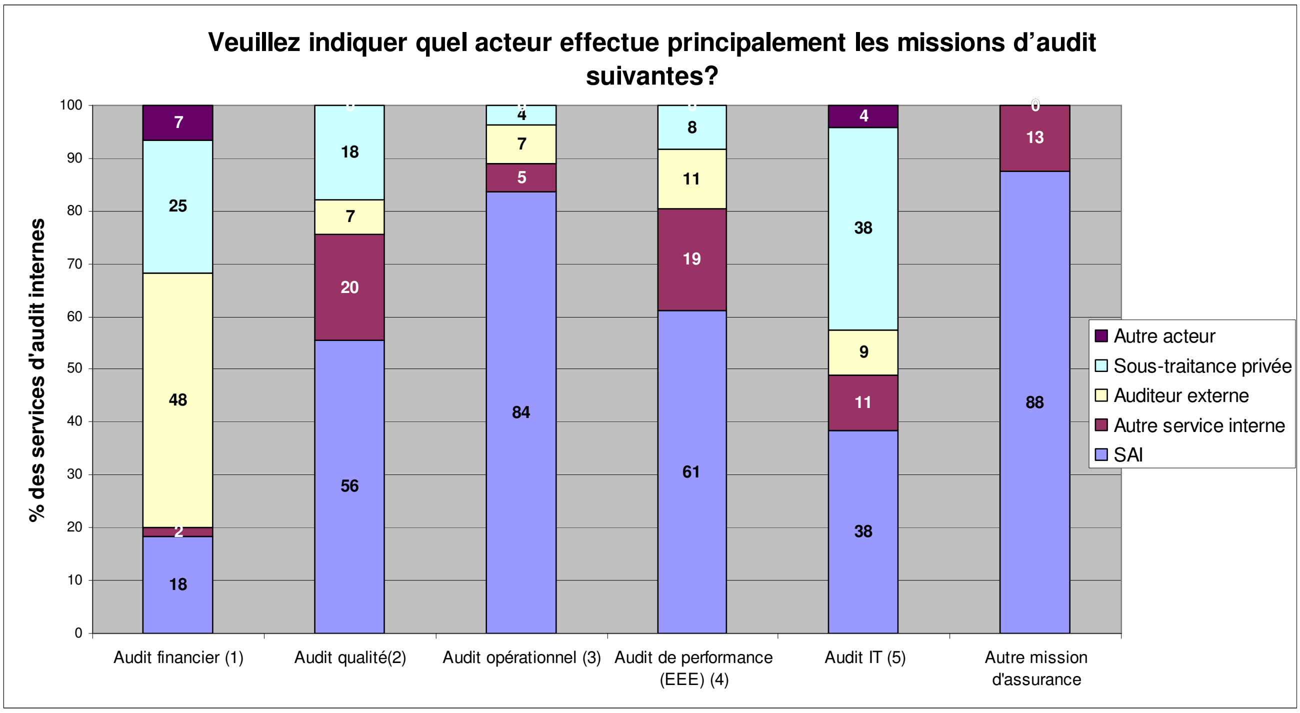
« Pour l'ensemble des auditeurs internes de votre équipe, veuillez répartir, par une estimation en %, le temps consacré en général à la réalisation des missions suivantes: »



- Concernant les autres rôles, la gestion administrative de l'équipe (congés, réunions, marchés publics, réseaux), suivi de la préparation des travaux du comité d'audit ont été le plus souvent citées.

Types de mission d'assurance

« Veuillez indiquer quel acteur principal effectue les missions d'audit suivantes? »



Dans le cadre de cette enquête, les missions d'audit ont été définies de la manière suivante :

(1) Audit financier : évaluation indépendante afin de garantir l'exactitude et la fiabilité des données financières.
(2) L'audit de conformité porte sur le respect des lois, règlements, procédures, conditions et restrictions mises à l'octroi de subventions ou à l'attribution de contrats de prestations.
(3) L'audit opérationnel examine les éléments de gestion d'une organisation (planification, organisation, direction et contrôle), c'est à dire, les objectifs et les plans, les responsabilités, les structures organisationnelles, les politiques et procédures, les systèmes et méthodes, les contrôles, et les ressources humaines et physiques.
(4) L'audit de performance examine l'utilisation des ressources pour déterminer si celles-ci sont utilisées de manière la plus Economique, Efficiente et Efficace (EEE) pour accomplir la mission et les objectifs de l'entité.
(5) L'audit IT examine les systèmes d'information d'une organisation, l'intégrité et la sécurité des données et de ses opérations.

- Les audits opérationnels, suivi des audits de performance et des audits « qualité » sont les plus souvent cités parmi les missions principales qu'effectuent les services d'audit interne.
- En ce qui concerne les autres services d'assurance effectués par les services d'audit interne, la plupart ont souvent mentionné la duplication des missions d'audits des auditeurs externes, surtout dans le domaine des audits financiers et de la certification ISO. Les audits sur la fraude ont aussi été mentionnés plusieurs fois.

8.4. Formation continue des auditeurs internes

Nombre d'heure(s) de formation continue

« De manière générale, quel est le nombre d'heure(s) moyen effectivement consacré à la formation pour chaque auditeur interne par année? »

- Le nombre d'heure(s) effectivement consacré à un programme de formation continue pour chaque auditeur interne oscille de 4 à 112 heures par an, avec une moyenne globale de 45 heures par an.
- 10% des services d'audit interne n'ont pas encore de formation continue.

8.5. Expérience professionnelle

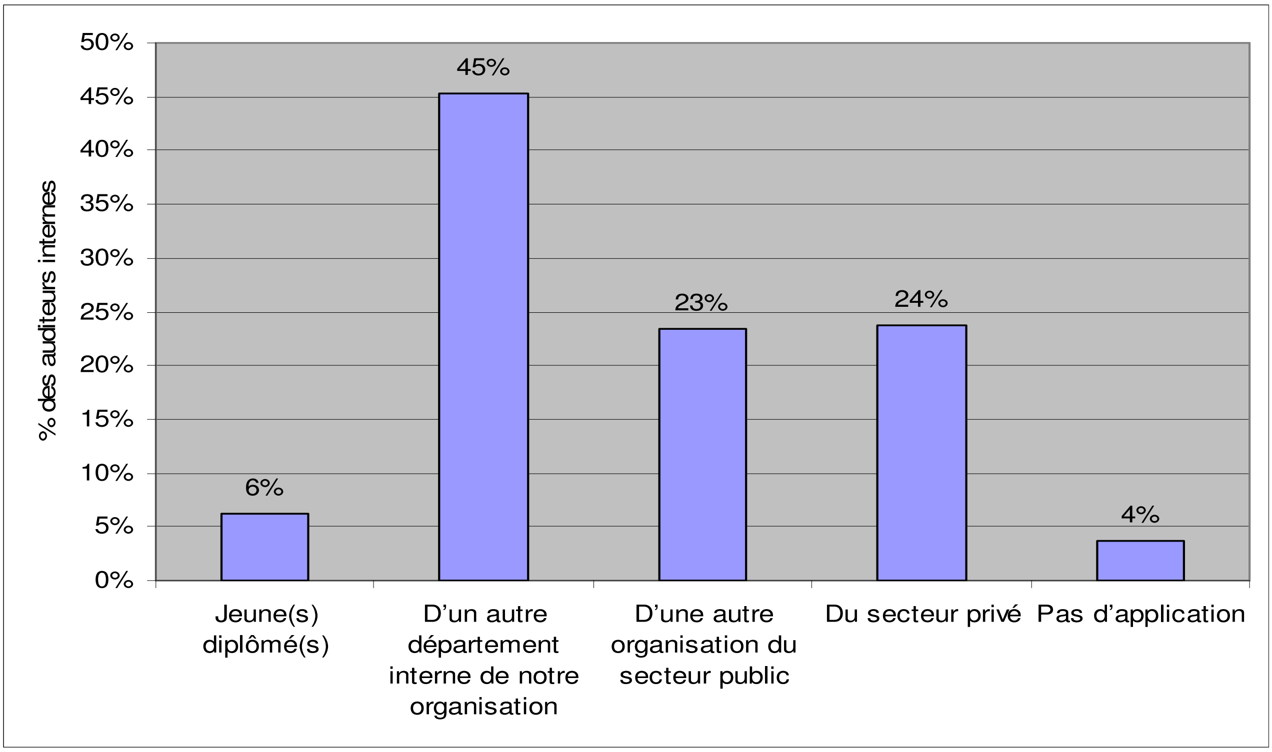
Expérience du responsable de l'audit interne

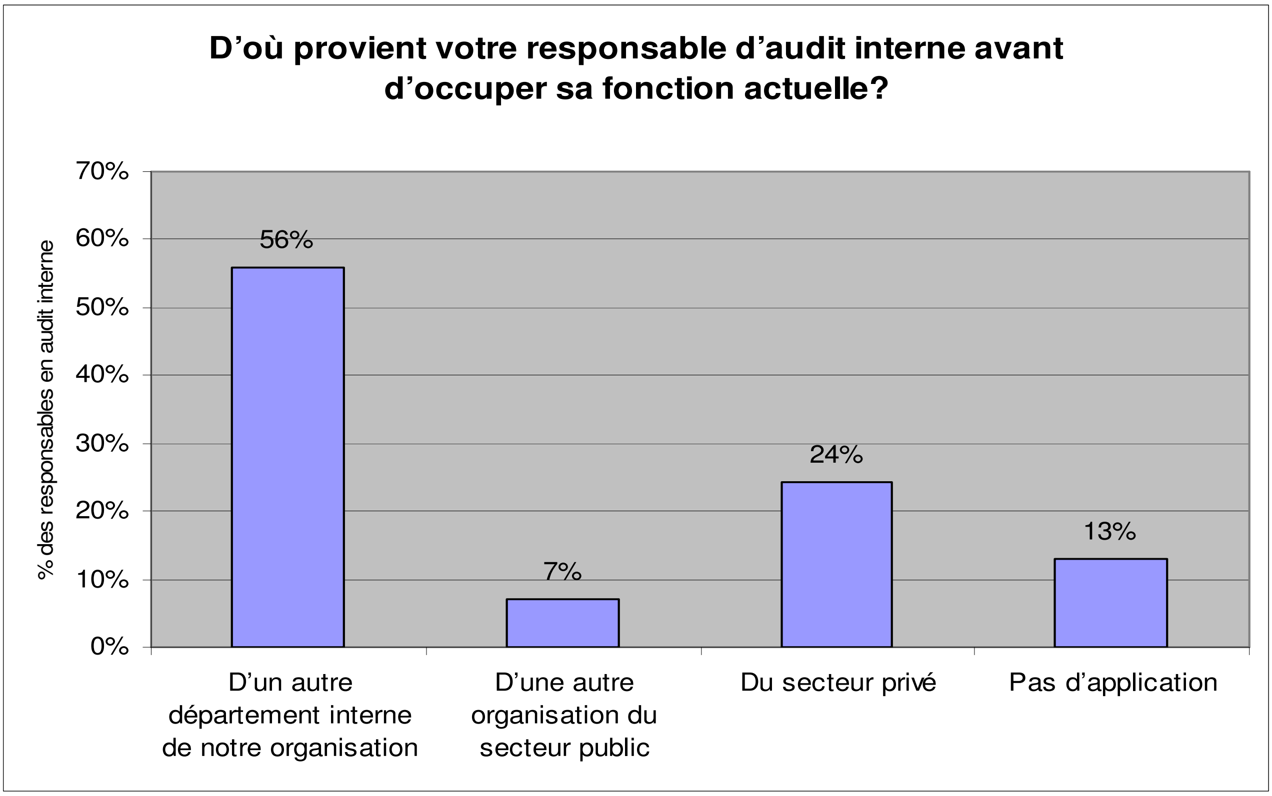
« De manière approximative, de combien d'années d'expérience en audit interne dispose votre responsable d'audit interne avant d'occuper son poste actuel? »

- Les responsables en audit interne ont de 0 à 20 ans d'expérience professionnelle en audit interne avant d'occuper leur fonction actuelle, avec en moyenne 4,7 années d'expérience.
- 55% des responsables ont 3 ans ou moins d'expérience en audit interne avant d'occuper leur fonction actuelle.
- 30% des responsables n'ont aucune expérience en audit interne avant d'occuper leur fonction actuelle.

Provenance des auditeurs internes

« D'où proviennent vos auditeurs internes avant d'occuper leurs nouvelles fonctions? »

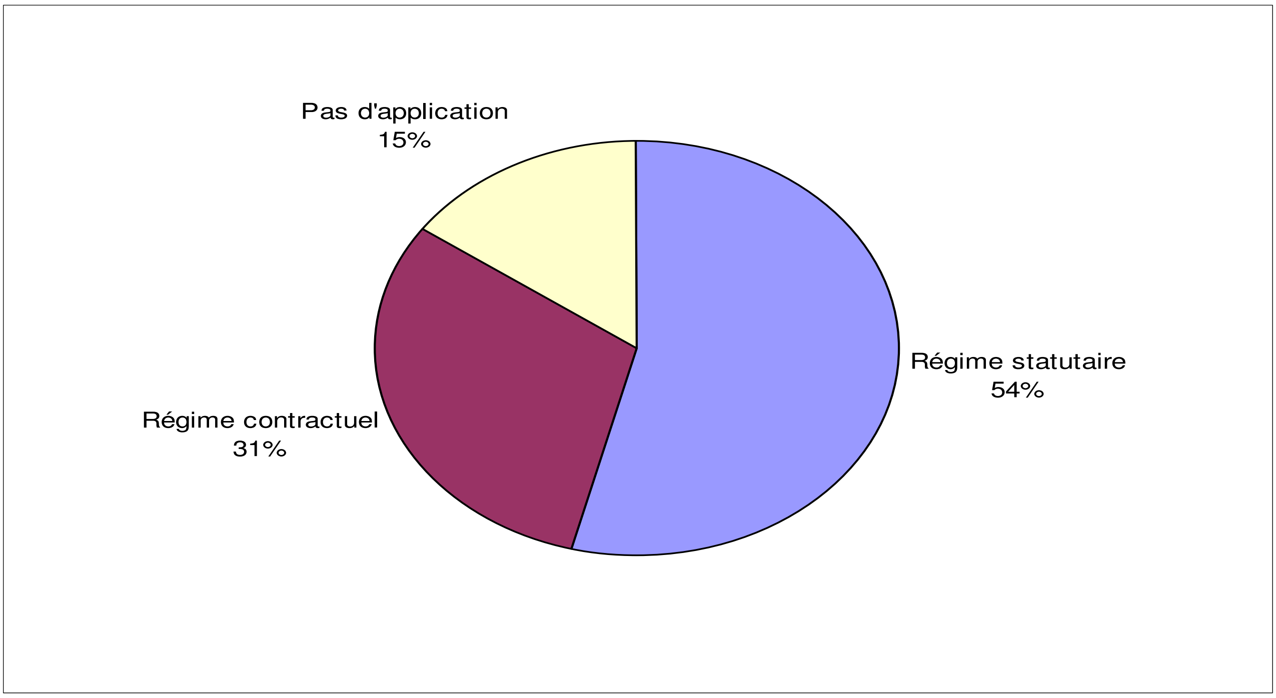




8.6. Cadre organique

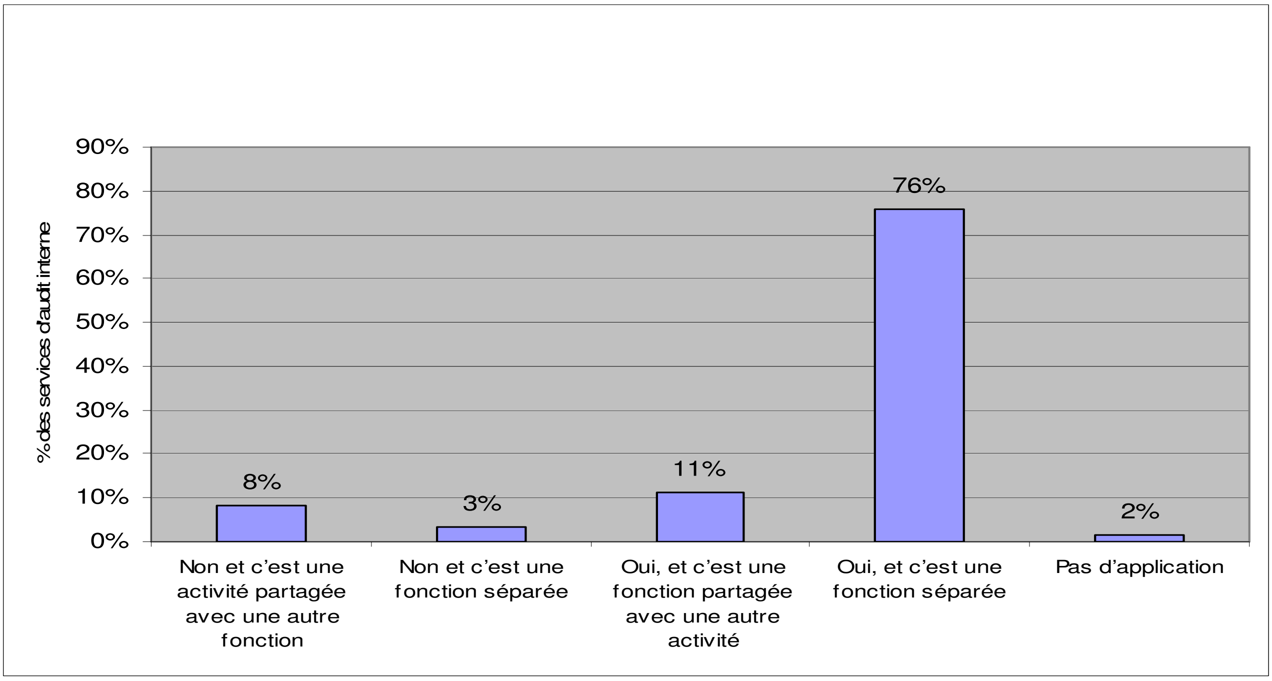
Statut des auditeurs internes

« Veuillez effectuer une estimation en % de la répartition de vos auditeurs internes qui sont sous le régime des statuts de la fonction publique et ceux qui ont un statut contractuel en 2010. »



Fonction d'audit interne dans l'organigramme

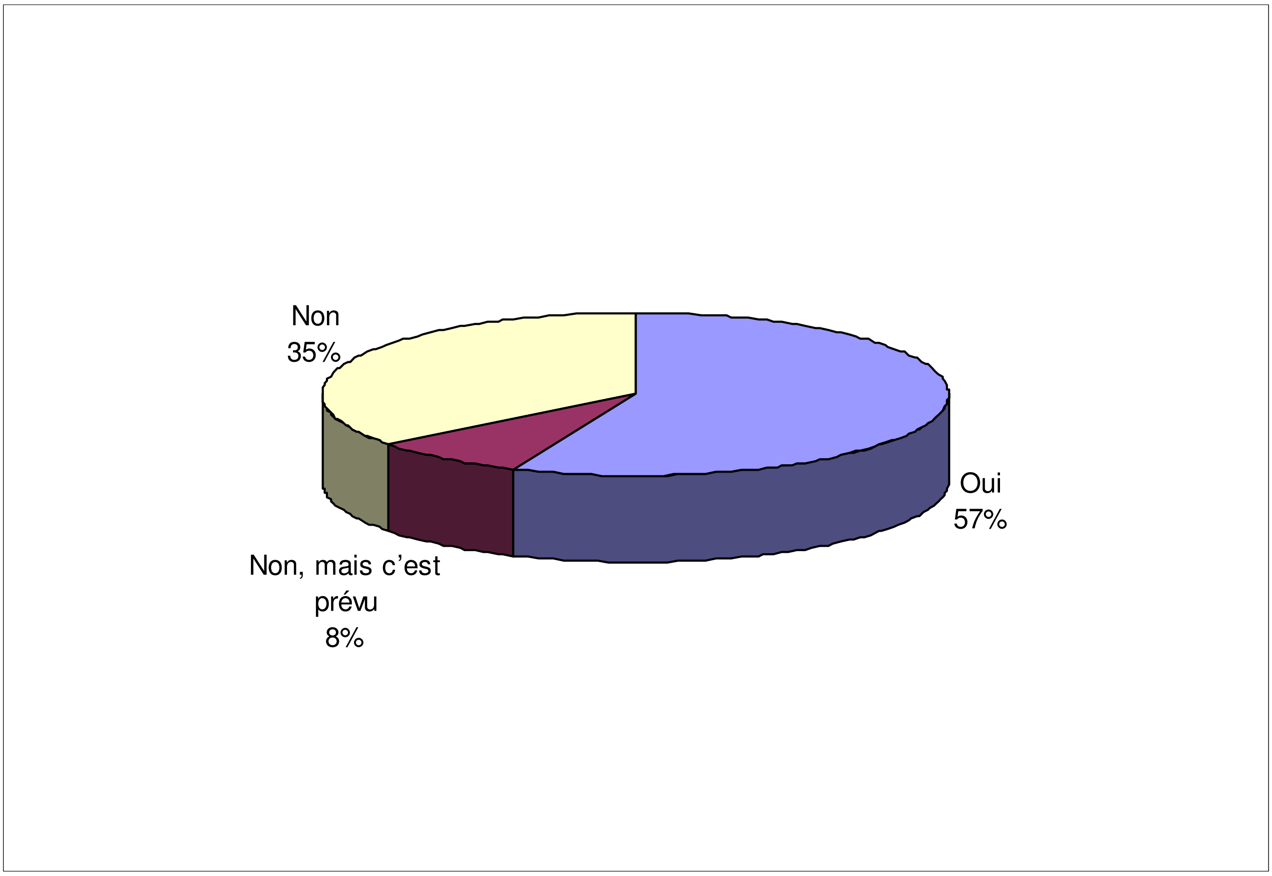
« La fonction d'audit interne est-elle explicitement reconnue dans l'organigramme/la structure de l'organisation? »



8.7. Le Comité d'audit

Présence d'un comité d'audit

« Votre organisation dispose-t-elle d'un comité d'audit ou autre organe équivalent? »



Ancienneté du comité d'audit

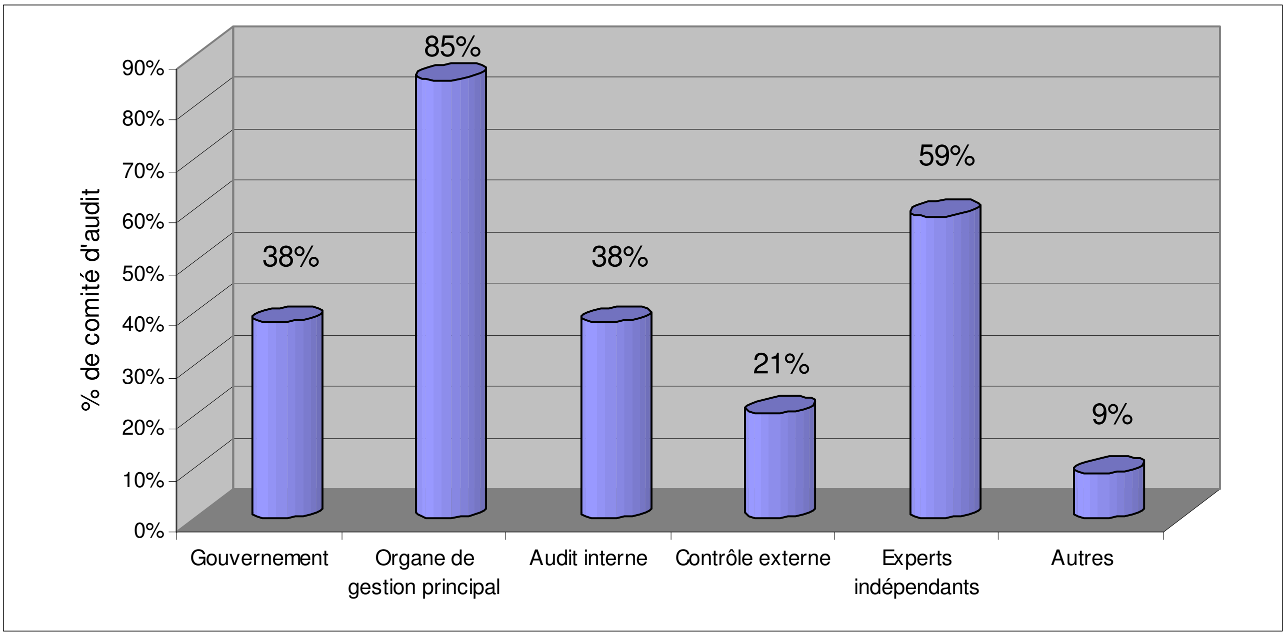
- En termes d'ancienneté, les comités d'audit ont de 0 à 15 ans, avec <u>une moyenne de 5 années d'existence.</u>

Effectif du comité d'audit

- Les comités d'audit comptent de 3 à 19 membres, avec <u>une moyenne de 3 à 5 membres</u> (52% des comités d'audit).

Composition du comité d'audit

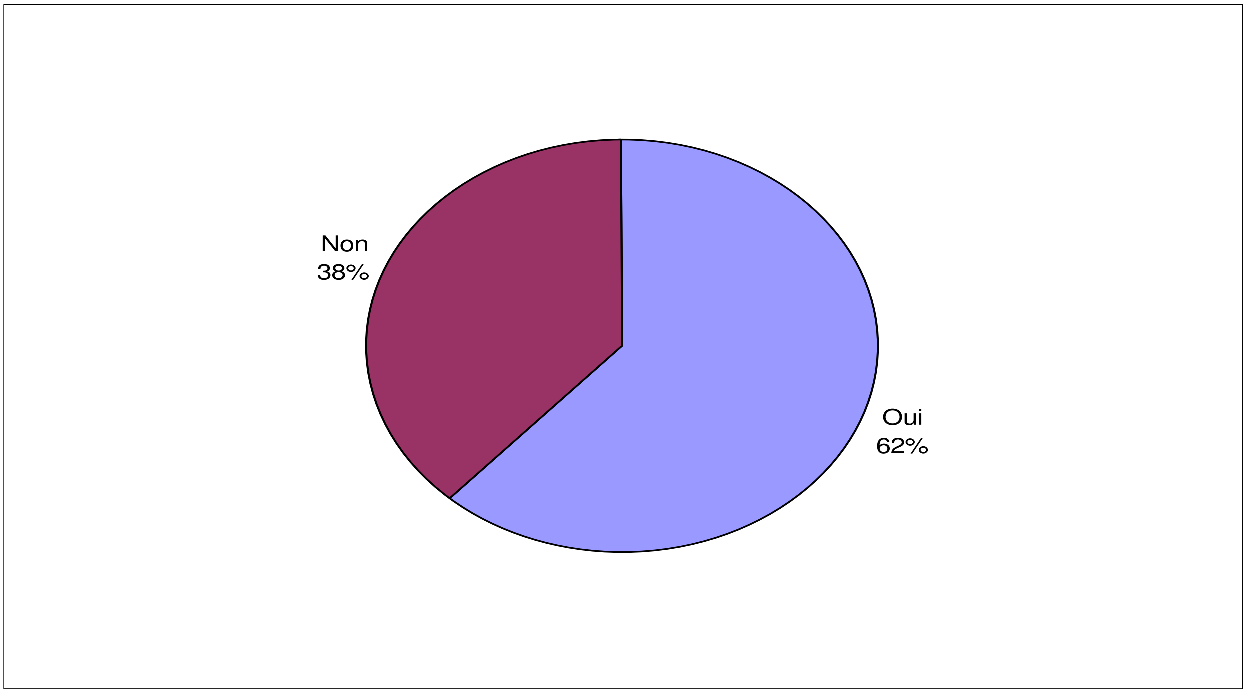
« Parmi les acteurs suivants, lesquels siègent dans votre comité d'audit? »



- Parmi les « **Autres »,** quelques sociétés anonymes ont mentionné quelques représentants de l'actionnariat privé ou des représentants des publics cibles.

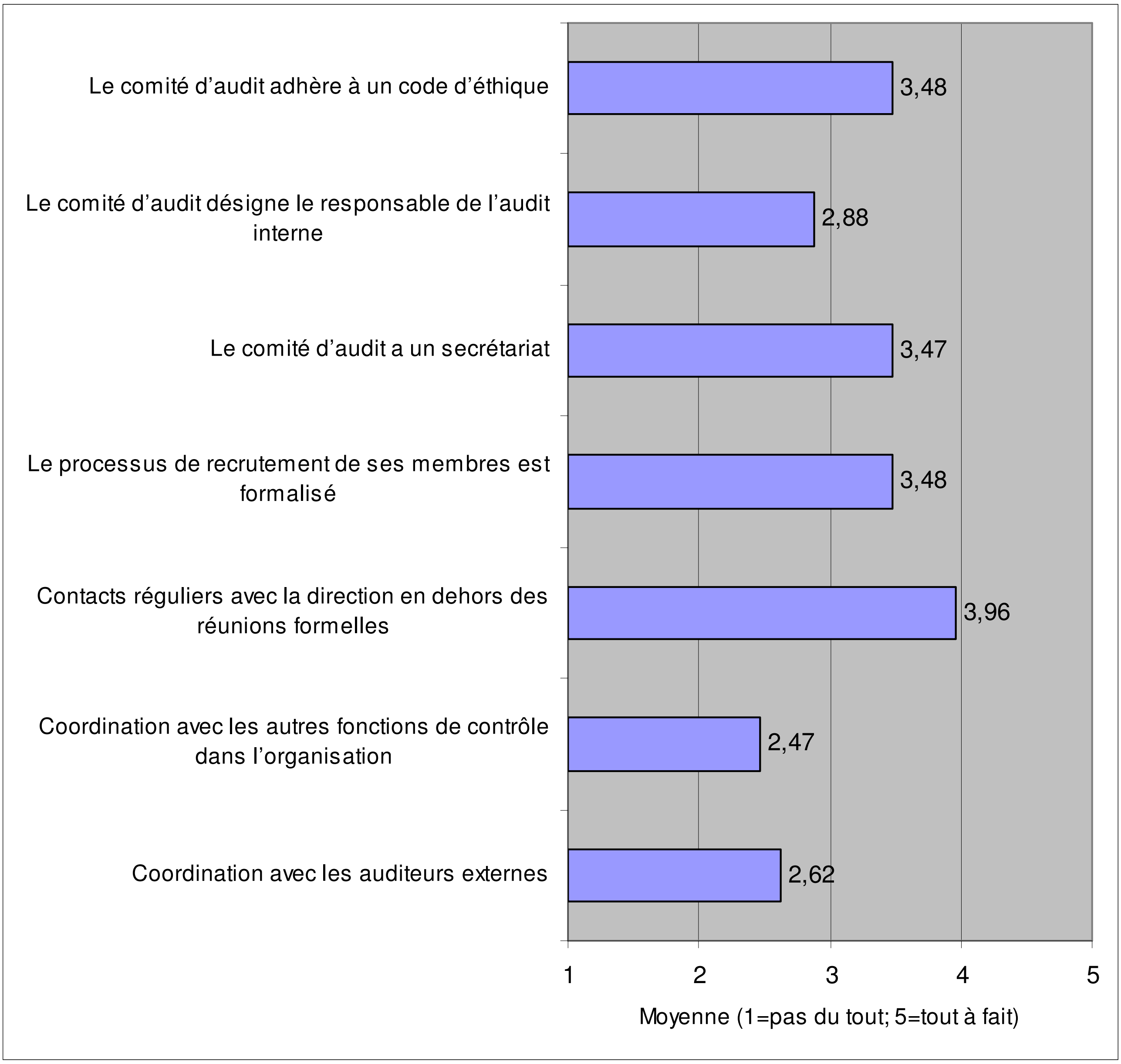
Mandat du Comité d'audit

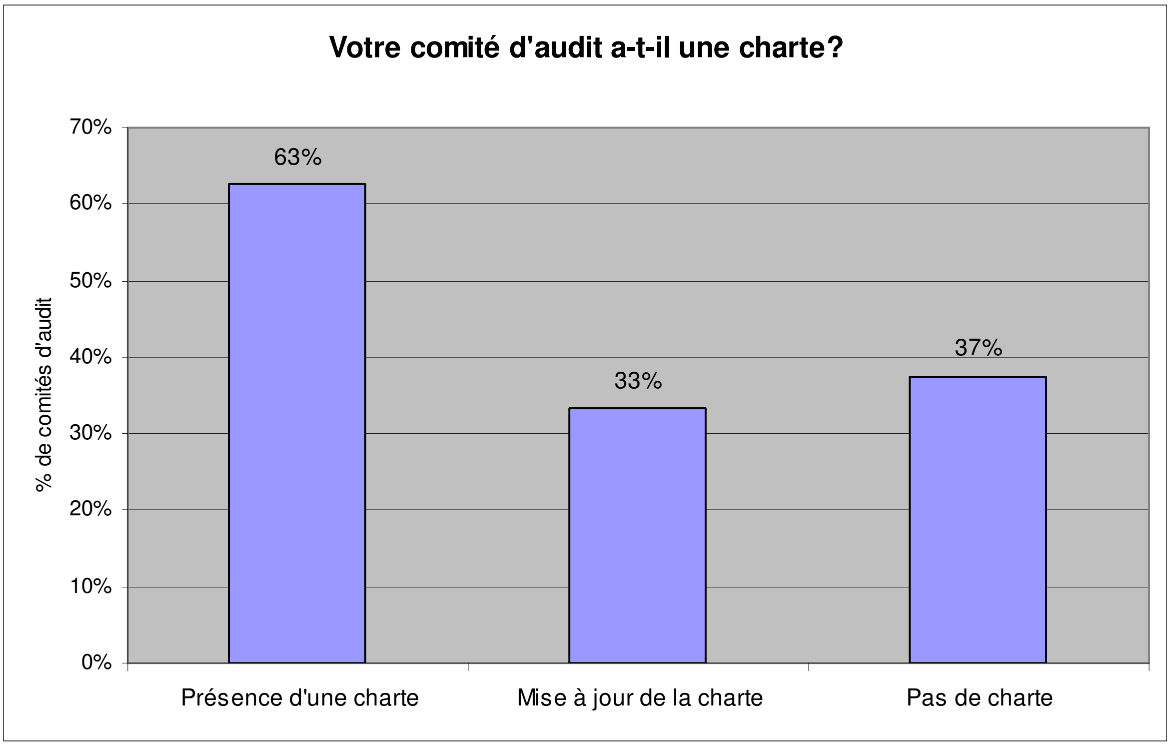
« Votre comité d'audit est-il mandaté par une source légale ou règlementaire? »



Pratiques/rôles du comité d'audit

« Dans quelle mesure les pratiques ci-dessous sont-elles appliquées dans votre comité d'audit ? »

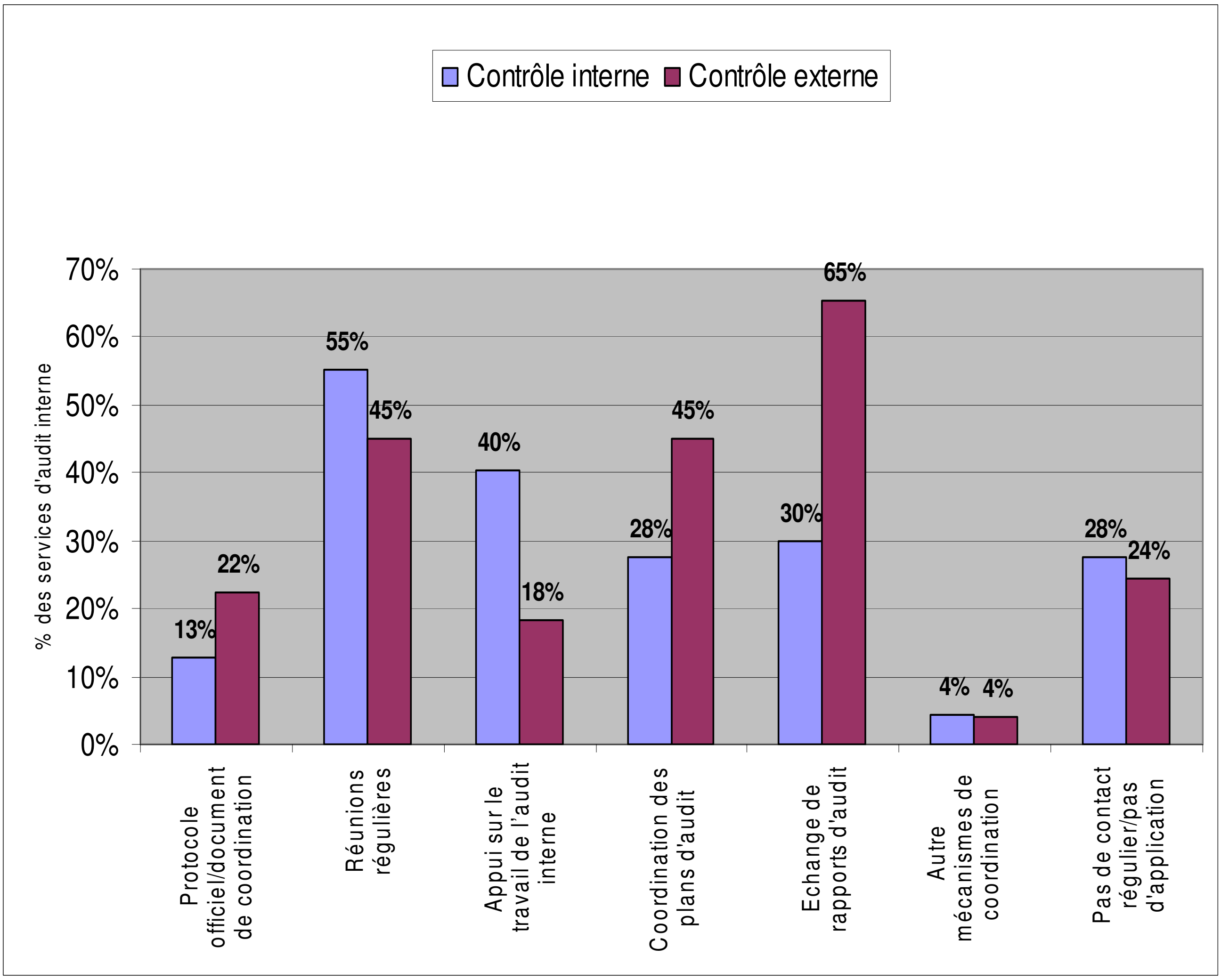

Le comité d'audit adhère à un code d'éthique
3,48
Le comité d'audit désigne le responsable de l'audit interne
2,88
Le comité d'audit a un secrétariat
3,47
Le processus de recrutement de ses membres est formalisé
3,48
Contacts réguliers avec la direction en dehors des réunions formelles
3,96
Coordination avec les autres fonctions de contrôle dans l'organisation
2,47
Coordination avec les auditeurs externes
2,62
1
2
3
4
5
Moyenne (1=pas du tout; 5=tout à fait)


Votre comité d'audit a-t-il une charte?
% de comités d'audit
70%
60%
50%
40%
30%
20%
10%
0%
63%
33%
37%
Présence d'une charte
Mise à jour de la charte
Pas de charte

9. La gouvernance de votre activité d'audit interne

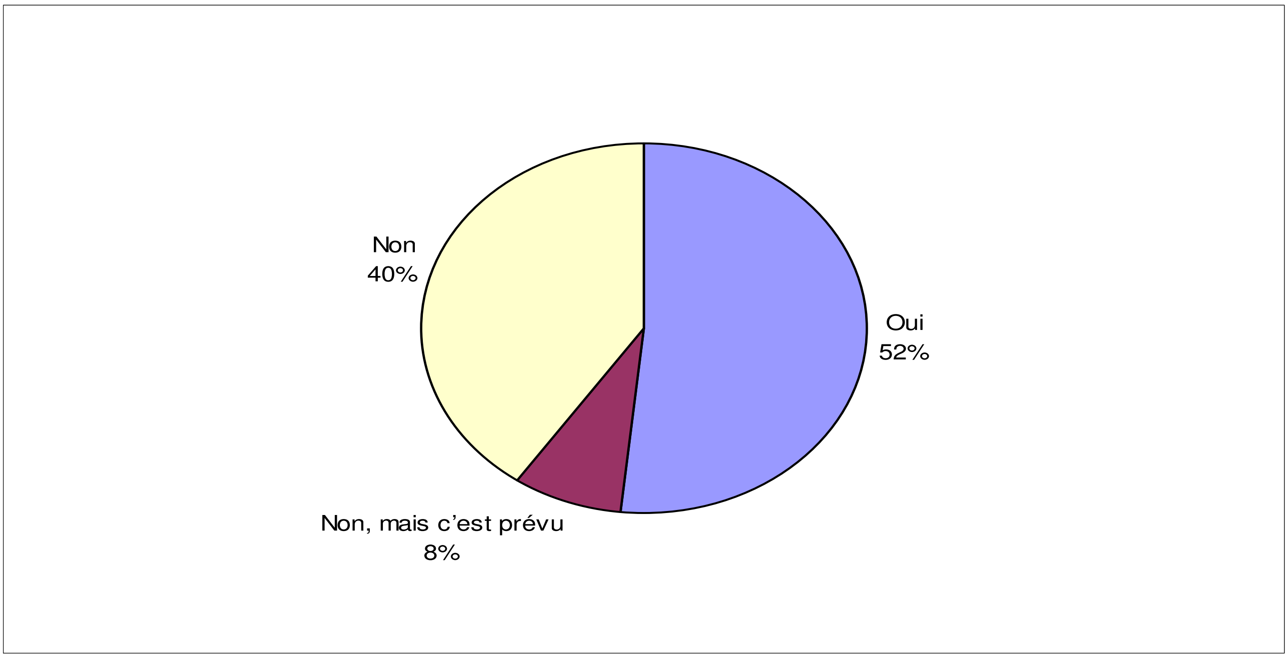
Mécanismes de coordination

« Si votre activité d'audit interne est en contact régulier avec d'autres services relatifs au contrôle interne dans votre organisation ou/et avec des acteurs du contrôle externe, quel(s) sont les mécanisme(s) de coordination qu'elle utilise avec ces services ou acteurs? »



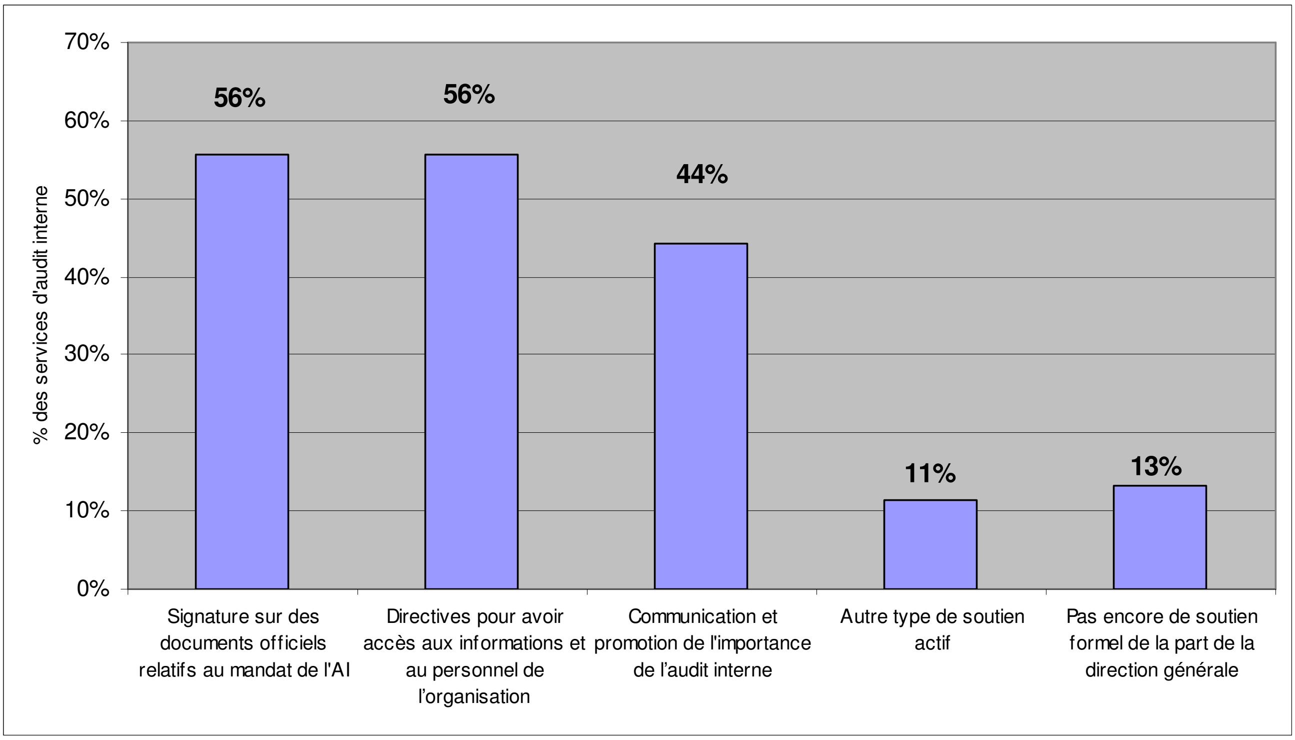
9.1. Flexibilité budgétaire

“Le système budgétaire de votre organisation prévoit-il un crédit budgétaire formel pour financer vos activités d’audit interne?”



9.2. Soutien actif de la direction générale

« De quelle manière la direction générale de l’organisation soutient-elle le mandat/l’importance de l’audit interne dans votre organisation? »

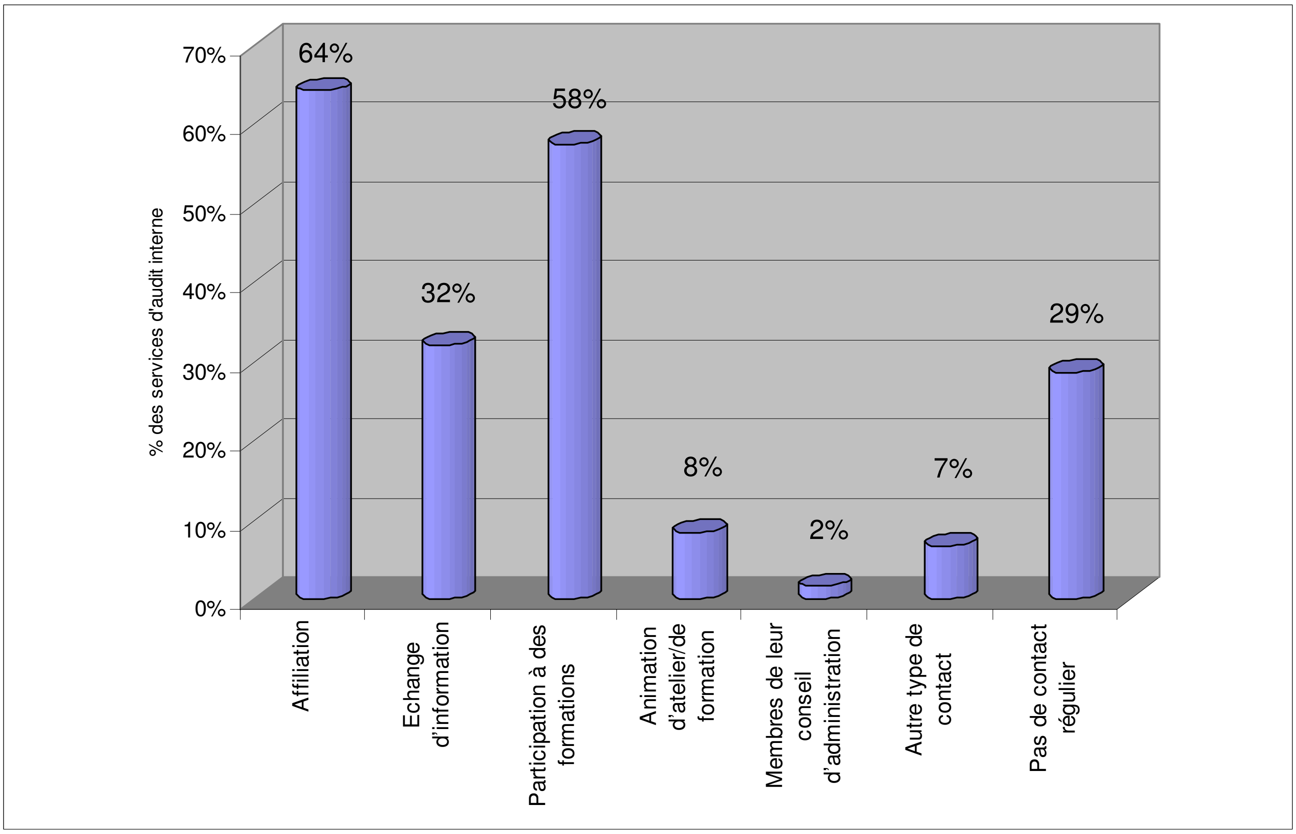


- En ce qui concerne « autre type de soutien », la fonction d'audit interne est parfois soutenue dans le cadre d'un plan stratégique ou opérationnel de la direction générale. Quelques organisations spécifient que l'audit interne est soutenue uniquement parce qu'elle a un mandat politique.

10. Pratiques professionnelles de votre activité d'audit interne

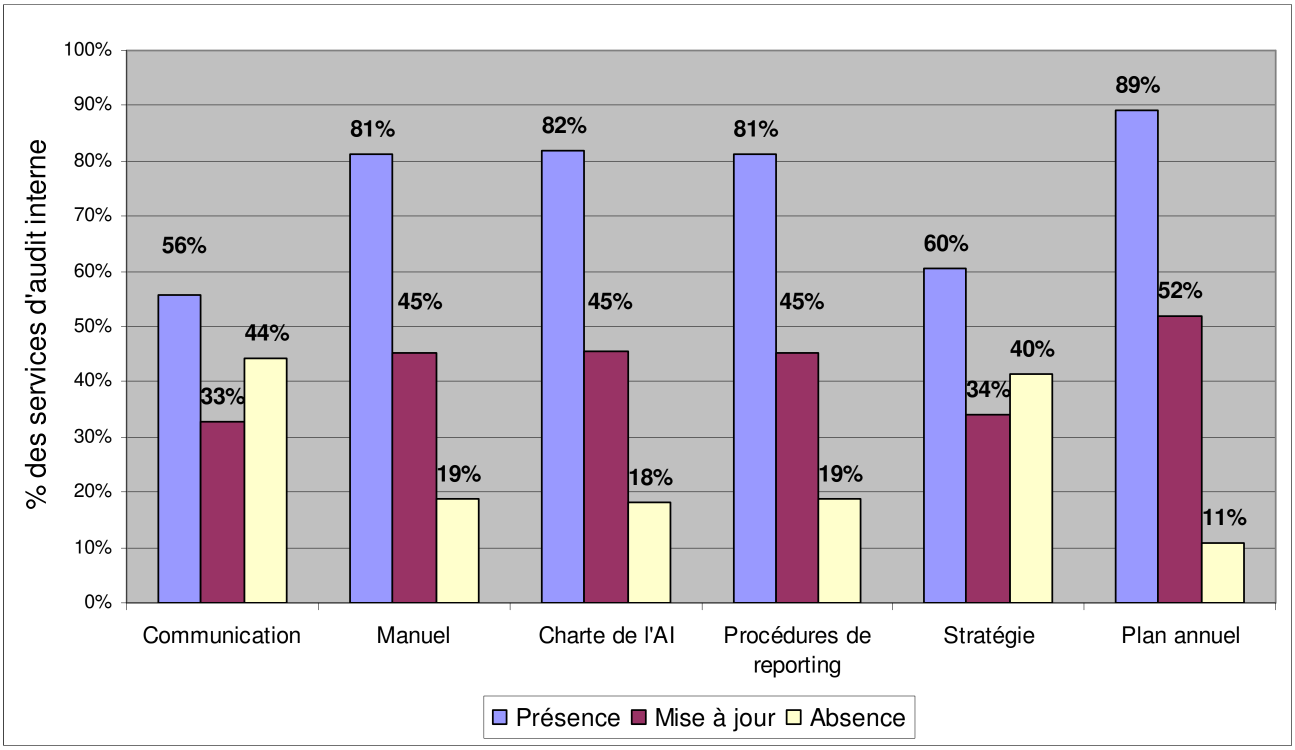
Affiliation à l'IIA BEL ou à un autre institut professionnel équivalent

« De quelle manière vos auditeurs internes sont-ils en contact avec l'IIA BEL ou un autre institut professionnel équivalent (IFACI, IRE, …)? »



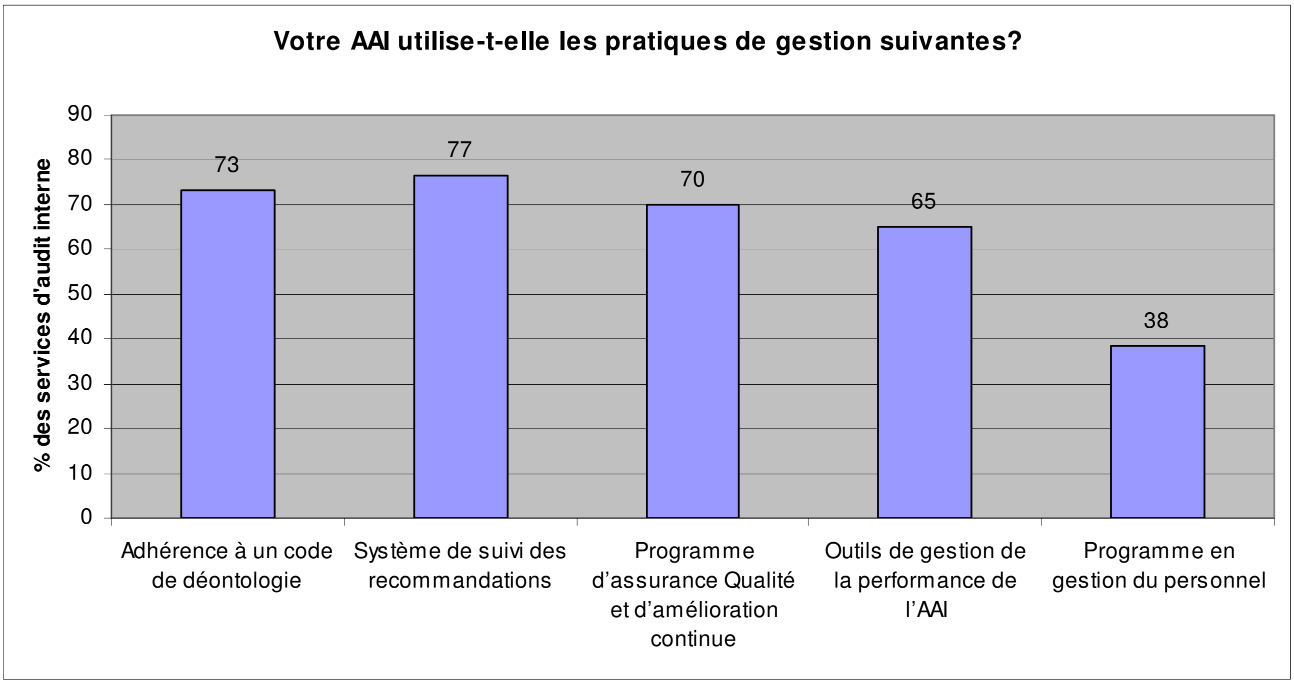
10.1. Documentation officielle de l'activité d'audit interne

« Veuillez cocher les documents suivants qui ont été développés et mis à jour dans votre organisation? »

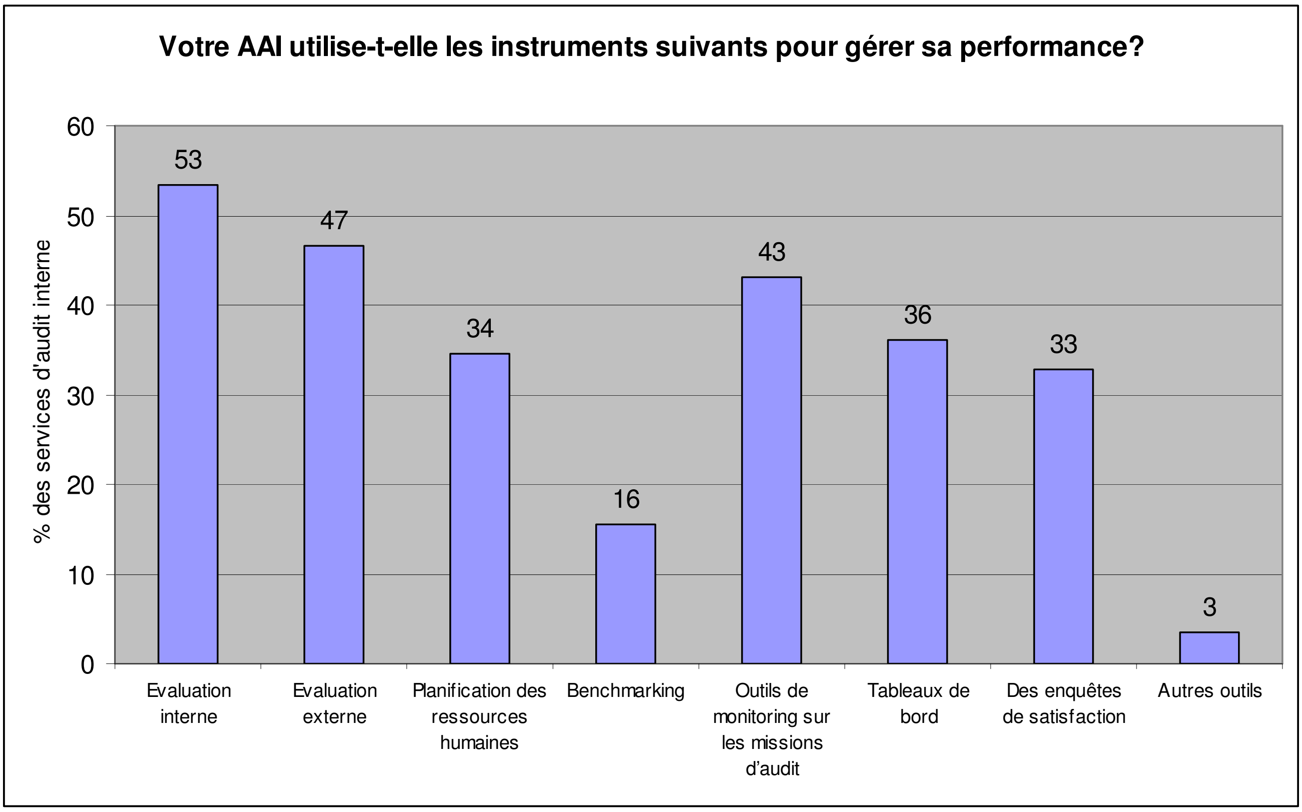


10.2. Pratiques de gestion de votre activité d'audit interne

Vue générale :



Vue détaillée :



« Si d'application, quand a eu lieu la dernière évaluation externe? »

- 75 % durant les 12 derniers mois
- 7% plus de 5 ans.
- **Autre** : rien de spécial

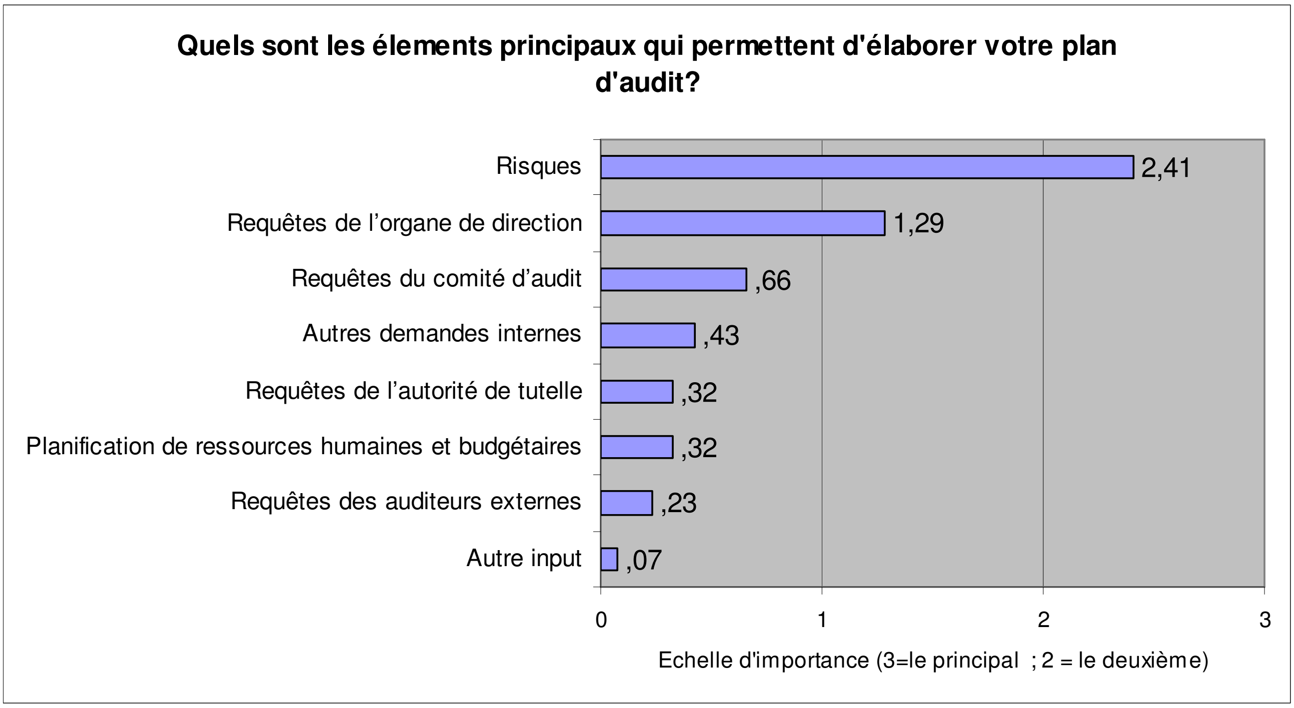
10.3.Degré de planification du plan d'audit

« Dans le processus de programmation des activités d'audit interne de votre organisation, quel est le pourcentage approximatif des missions qui sont effectivement planifiées et celles qui sont introduites de manière ad hoc? »

- Actions planifiées? _______ Moyenne 78 %
- Demandes ad hoc ? _______ Moyenne 22 %

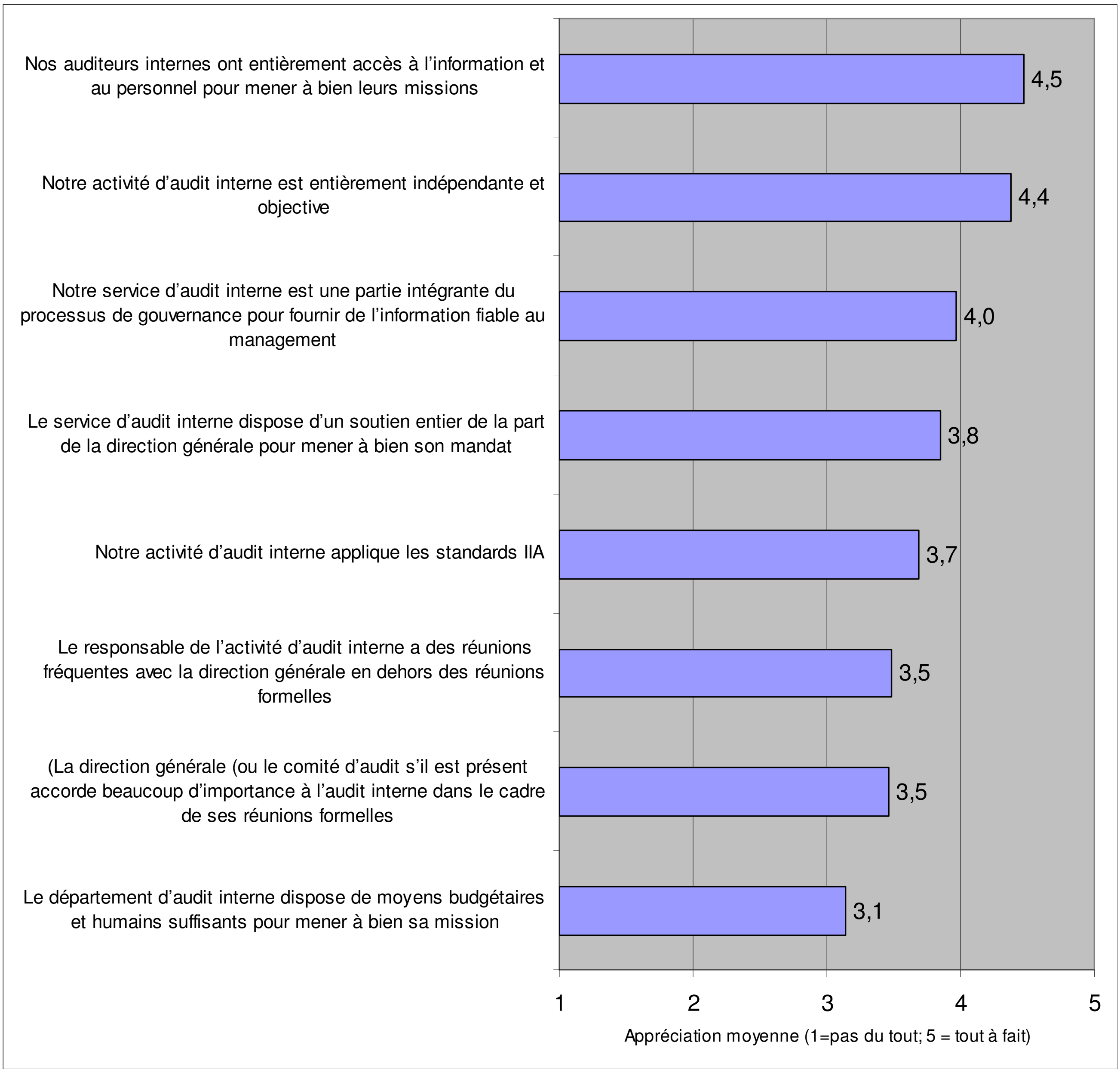
10.4. Composition du plan d'audit de votre organisation

« Quels sont, par ordre d’importance, les éléments principaux qui permettent d’élaborer la programmation de vos missions d’audit interne? »



10.5. Autres considérations.

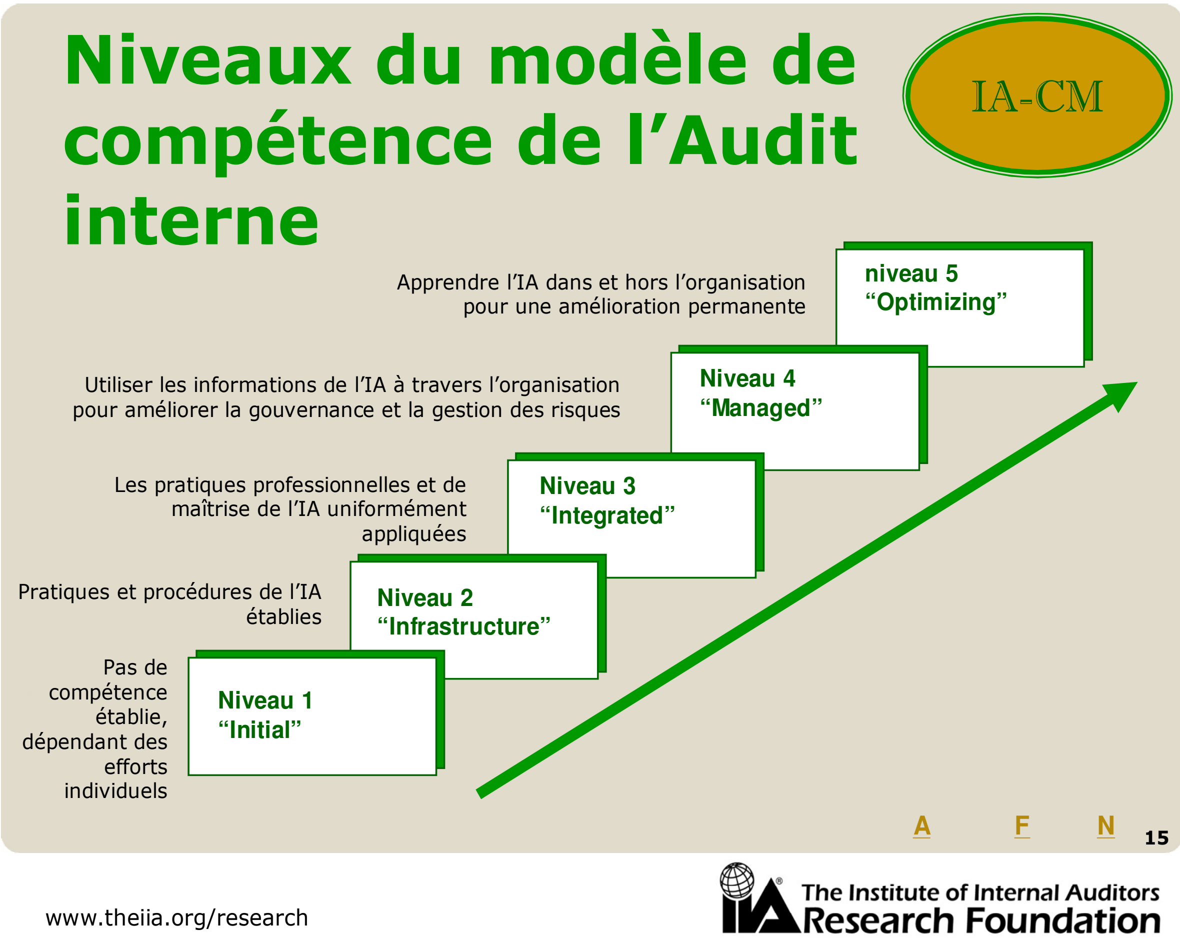
« Pour chaque élément ci-dessous, veuillez attribuer une appréciation qui caractérise au mieux, selon vous, la situation actuelle dans votre organisation. »



- 62 % des services d'audit interne déclarent appliquer en grande partie les standards IIA

11. Niveaux de maturité de l'audit interne

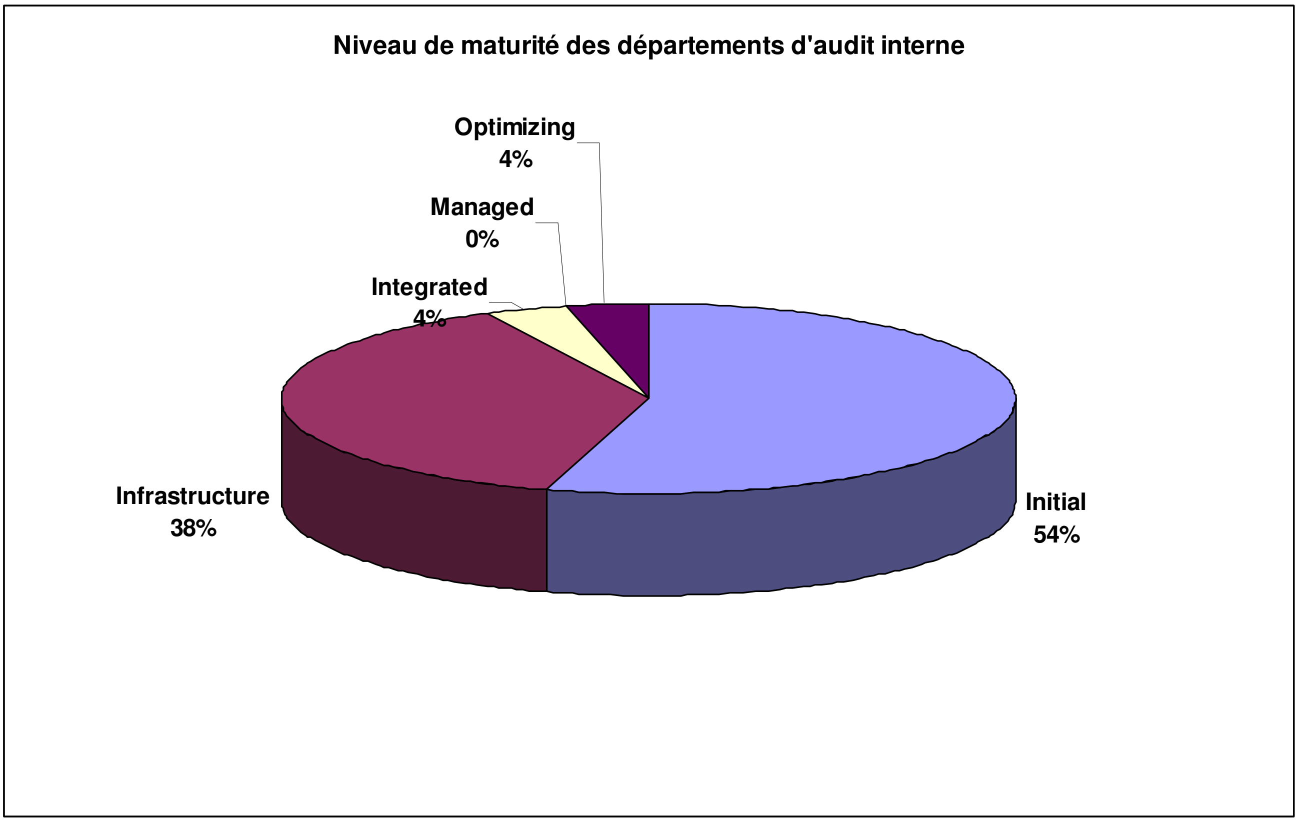
Une liste de 89 indicateurs a été élaborée d'après l'interprétation du modèle de maturité de l'audit interne pour le secteur public *(« Internal Audit Capability Model (IA-CM) for the Public Sector »)* développé par l'IIA Research Foundation.[139] Ces indicateurs ont été répartis dans le questionnaire de l'enquête. Les différents niveaux de maturité sont résumés dans le graphique ci-dessous.

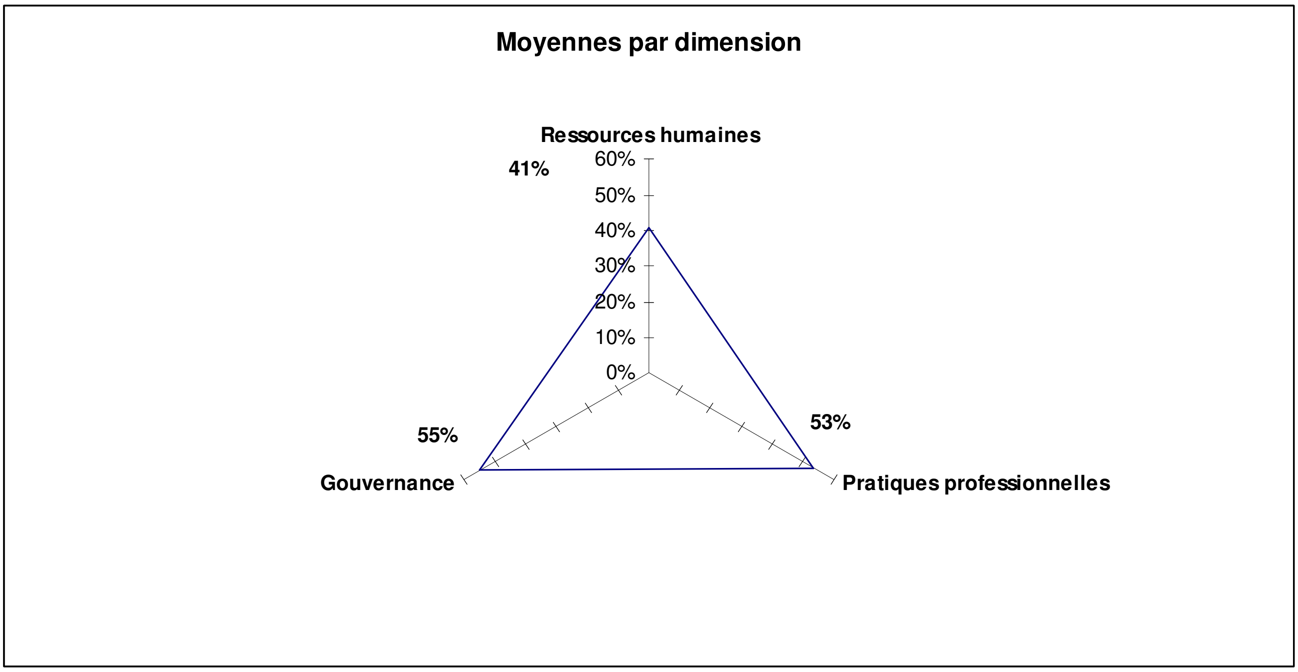


[139] Pour de plus amples informations sur le modèle, voir le site www.theiia.org, en particulier http://www.theiia.org/bookstore/product/internal-audit-capability-model-iacm-for-the-public-sector-1422.cfm

- Dans le cadre de la méthodologie de l'enquête, chaque service d'audit interne accède à un niveau de maturité supérieur s'il remplit au moins 70% des indicateurs correspondant à chaque niveau de maturité précédent et actuel, et ainsi de suite. Les indicateurs ont été regroupés dans trois des six dimensions provenant du modèle de compétences, à savoir « Les pratiques professionnelles», « La gouvernance », et « La gestion des ressources humaines».

- Il est important de mentionner que tous les résultats de cette enquête sont basés uniquement sur l'appréciation des répondants concernant leurs activités d'audit interne et non sur une évaluation effective de celles-ci.





- Le graphique ci-dessus représente pour l'ensemble des services d'audit interne la moyenne des résultats par dimension. Selon la logique du modèle de compétence, un service d'audit interne ne peut évoluer favorablement et durablement à un niveau de maturité supérieur que si certaines dimensions ont atteint un niveau de compétence satisfaisant[140]. La moyenne globale des résultats révèle qu'aucune des trois dimensions n'obtient un seuil favorable pour permettre aux organisations d'atteindre un niveau de maturité élevé concernant leur service d'audit interne, en particulier à cause d'une gestion des ressources humaines qui semble, d'après les résultats de l'enquête, relativement précaire pour cette fonction dans ce secteur.

[140] La dimension « Environnement de l'organisation » a été partiellement abordée en point 3 du rapport.

5.8 Appendix "Questionnaires published online for the quantitative survey" (in French)

GAIN — The IIA's Premier Benchmarking Program
In Connection with IIA Belgium

Enquête sur l'audit interne dans le secteur public belge

L'Institut des Auditeurs Internes (IIA), en collaboration avec l'Université Catholique de Louvain et l'Université de Gand, lance une enquête sur l'audit interne dans le secteur public en Belgique. Même si vous ne disposez pas encore d'un service d'audit interne, ou, si celui-ci est principalement sous-traité, certaines questions vous sont adressées.
Nous vous remercions d'avance d'accorder un peu de votre temps pour répondre à ce questionnaire et de le remplir **avant le jeudi 10 juin**.
Le questionnaire reprend des questions à choix multiples dans les domaines suivants:
—l'environnement/état du contrôle interne dans votre organisation,
—le profil de l'activité d'audit interne dans votre organisation,
—la gouvernance de votre activité d'audit interne,
—les pratiques professionnelles de votre activité d'audit interne.

Le remplissage du questionnaire devrait prendre environ 20 minutes (ou 35 minutes si votre organisation dispose d'un service d'audit interne bien établi).

Si vous avez besoin d'une assistance en français pour répondre à une question, veuillez contacter Diane van Gils au 0494 92 74 46, disponible tous les jours avant 14h ou par email (diane.vangils@uclouvain.be).

Si vous n'avez pas terminé de répondre au questionnaire ou si vous avez des problèmes de connexion INTERNET pendant la session de remplissage, vous avez la possibilité de sauvegarder le questionnaire en cliquant sur le bouton «Sauvegarder» situé en bas des pages suivantes.

1. Fonction du répondant

Veuillez spécifier: ____

2. Nom de l'organisation

Veuillez préciser le nom complet de votre organisation:

____

Partie 1 : Environnement/Etat du contrôle interne de l'organisation

Etat du contrôle interne de l'organisation

3. Réglementation relative au contrôle interne
Si votre organisation est soumise à un cadre réglementaire lui imposant explicitement de mettre en place des dispositifs de contrôle interne, veuillez préciser quel(s) type(s) de réglementation. (plusieurs réponses possibles)

❑ Absence d'un cadre réglementaire sur le contrôle interne

❑ Contrat d'administration (ou contrat de gestion)

❑ Lois, arrêtés royaux et ministériels au niveau fédéral

❑ Décrets, ordonnances et arrêtés des gouvernements des Communautés et des Régions

❑ Réglement communal ou provincial

❑ Directive européenne

❑ Autre, veuillez spécifier: ____

4. Référentiels utilisés.
Veuillez indiquer quels sont les référentiels généralement utilisés dans le cadre des activités du contrôle interne au sein de votre organisation. Pour chaque référentiel utilisé, veuillez préciser s'il est obligatoire ou non.

	Obligatoire	Pas obligatoire	Pas d'application
Committee of Sponsoring Organizations (COSO) / International Organization of Supreme Audit Institutions (INTOSAI)	❍	❍	❍
International Organization for	❍	❍	❍

Standardization (ISO)			
Eco-Management and Audit Scheme (EMAS)	❍	❍	❍
Control Objectives for Information and related Technology (COBIT) ou autre modèle IT	❍	❍	❍
European Foundation for Quality Management (EFQM) / Common Assessment Framework (CAF)	❍	❍	❍

4a. Si votre organisation utilise d'autre(s) référentiel(s) obligatoire(s) dans le cadre de ses activités du contrôle interne, veuillez préciser ici le(s)quel(s):

____

____

____

4b. Si votre organisation utilise d'autre(s) référentiel(s) non obligatoire(s) dans le cadre de ses activités du contrôle interne, veuillez préciser ici le(s)quel(s):

____

____

____

(End of Page 1)

---

5. Etat/culture du contrôle interne
Pour chaque élément ci-dessous, veuillez attribuer une appréciation sur une échelle de 1 à 5 (1=pas du tout, 5=tout à fait) qui caractérise au mieux, selon vous, la situation actuelle dans votre organisation.

	1 Pas du tout	2	3	4	5 Tout a fait
Les objectifs de notre organisation sont quantifiés	❍	❍	❍	❍	❍
Le management est sensibilisé à tout ce qui concerne le contrôle interne	❍	❍	❍	❍	❍
Notre organisation dispose	❍	❍	❍	❍	❍

d'un processus global des dispositifs du contrôle interne					
Les dispositifs de contrôle interne recouvrent l'ensemble des activités de l'organisation	❍	❍	❍	❍	❍
Les dispositifs de contrôle interne sont améliorés de manière continue	❍	❍	❍	❍	❍
Notre organisation dispose d'un système de planification des ressources humaines	❍	❍	❍	❍	❍
Notre organisation dispose d'un système pour la gestion des plaintes	❍	❍	❍	❍	❍
Notre organisation dispose d'un système qualité	❍	❍	❍	❍	❍
Les processus de l'organisation sont décrits ou documentés	❍	❍	❍	❍	❍
Les processus de support (financiers, humains, contrôle) sont intégrés/informatisés dans une plateforme IT commune pour l'ensemble de l'organisation (e.g. solutions ERP comme SAP)	❍	❍	❍	❍	❍
Le professionnalisme est une valeur importante pour notre organisation	❍	❍	❍	❍	❍
Notre organisation dispose d'une culture de transparence/d'ouverture	❍	❍	❍	❍	❍

6. La gestion des risques
Dans quelle mesure votre organisation a-t-elle une fonction de la gestion des risques? Veuillez cocher les réponses qui correspondent à la situation de votre organisation. (plusieurs réponses possibles)

❑ Le management est sensibilisé à tout ce qui concerne les risques

❑ Notre organisation a une fonction spécifique en gestion des risques (e.g. risk manager)

❑ Notre gestion des risques comporte l'identification des risques

❑ Notre gestion des risques comporte l'évaluation des risques

❑ Notre gestion des risques comporte la gestion et le suivi des risques

❑ Notre organisation a une approche globale/transversale sur la gestion des risques

❑ Pas encore de gestion des risques

7. Documents officiels de l'organisation
Veuillez indiquer si votre organisation dispose des documents suivants: (plusieurs réponses possibles)

❑ Code de bonne conduite/ code de déontologie

❑ Code de bonne gouvernance

❑ Contrat d'administration ou contrat de gestion

❑ Déclaration de mission

❑ Plan stratégique

❑ Rapport annuel

<u>Contrôle externe</u>

8. Intensité du contrôle externe
A quelle fréquence votre organisation fait-elle l'objet d'un contrôle externe? Par contrôle externe, on entend des audits dans le cadre par exemple de contrôles financiers récurrents, d'examens de dossiers (e.g. l'examen d'un projet par l'autorité de tutelle), ou d'autres types d'audits effectués par des inspecteurs ou commissaires du gouvernement, des auditeurs de la Cour des comptes, etc.

❍ Mensuellement ou plus >>>> Skip to Page 3: Périmètre du contrôle externe
Dans quelle mesure les domaines de l'organisation mentionnés ci-dessous sont-ils audités par les acteurs du contrôle externe? Veuillez attribuer une appréciation sur une échelle de 1 à 5 (1=pas du tout, 5=tout à fait) qui caractérise, au mieux, selon vous, la situation actuelle dans votre organisation.

❍ Tous les 2 à 5 mois >>>> Skip to Page 3: Périmètre du contrôle externe
Dans quelle mesure les domaines de l'organisation mentionnés ci-dessous sont-ils audités par les acteurs du contrôle externe? Veuillez attribuer une appréciation sur une échelle de 1 à 5 (1=pas du tout, 5=tout à fait) qui caractérise, au mieux, selon vous, la situation actuelle dans votre organisation.

❍ Deux fois par an

❍ Une fois par an >>>> Skip to Page 4: Présence de sanctions positives/négatives
Dans la réalité, votre organisation est-elle soumise de manière effective à des sanctions positives/négatives en cas de bonne /mauvaise performance? Par sanctions positives/négatives, on entend par exemple l'octroi supplémentaire de fonds, la possibilité d'avoir plus ou moins de flexibilité managériale pour l'organisation, sa survie légale, l'adoption effective de sanctions positives ou négatives à l'égard de son personnel, etc.

❍ Moins d'une fois par an >>>> Skip to Page 4: Présence de sanctions positives/négatives
Dans la réalité, votre organisation est-elle soumise de manière effective à des sanctions positives/négatives en cas de bonne /mauvaise performance? Par sanctions positives/négatives, on entend par exemple l'octroi supplémentaire de fonds, la possibilité d'avoir plus ou moins de flexibilité managériale pour l'organisation, sa survie légale, l'adoption effective de sanctions positives ou négatives à l'égard de son personnel, etc.

❍ Jamais >>>> Skip to Page 4: Présence de sanctions positives/négatives
Dans la réalité, votre organisation est-elle soumise de manière effective à des sanctions positives/négatives en cas de bonne /mauvaise performance? Par sanctions positives/négatives, on entend par exemple l'octroi supplémentaire de fonds, la possibilité d'avoir plus ou moins de flexibilité managériale pour l'organisation, sa survie légale, l'adoption effective de sanctions positives ou négatives à l'égard de son personnel, etc.

(End of Page 2)

8a. Périmètre du contrôle externe
Dans quelle mesure les domaines de l'organisation mentionnés ci-dessous sont-ils audités par les acteurs du contrôle externe? Veuillez attribuer une appréciation sur une échelle de 1 à 5 (1=pas du tout, 5=tout à fait) qui caractérise, au mieux, selon vous, la situation actuelle dans votre organisation.

	1 Pas du tout	2	3	4	5 Tout à fait
Elaboration de la stratégie de l'organisation	❍	❍	❍	❍	❍
Résultats par rapport aux objectifs de l'organisation	❍	❍	❍	❍	❍
Processus/opérations «métier» de l'organisation	❍	❍	❍	❍	❍
Processus de contrôle interne/gestion des risques	❍	❍	❍	❍	❍
Information management system /IT	❍	❍	❍	❍	❍
Gestion financière, budgétaire et comptabilité	❍	❍	❍	❍	❍
Conformité à la législation et à la règlementation	❍	❍	❍	❍	❍
Gouvernance, équité, éthique	❍	❍	❍	❍	❍
Autres	❍	❍	❍	❍	❍

8b. Si vous avez répondu «Autre» à la question 8a, veuillez spécifier:

____

____

(End of Page 3)

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9. Présence de sanctions positives/négatives
Dans la réalité, votre organisation est-elle soumise de manière effective à des sanctions positives/négatives en cas de bonne /mauvaise performance? Par sanctions positives/négatives, on entend par exemple l'octroi supplémentaire de fonds, la possibilité d'avoir plus ou moins de flexibilité managériale pour l'organisation, sa survie légale, l'adoption effective de sanctions positives ou négatives à l'égard de son personnel, etc.

❍ Oui, avec un impact important pour le fonctionnement de l'organisation

❍ Oui, avec un impact modéré ou faible pour le fonctionnement de l'organisation

❍ Pas de sanctions positives/négatives

(End of Page 4)

Partie II : Profil de l'activité d'audit interne dans votre organisation

<u>Présence d'une Activité d'Audit Interne (AAI)</u>
Par «Activité d'Audit Interne», on entend un service, une fonction ou un responsable en rapport avec une activité d'audit interne dans l'organisation, ou, une activité d'audit interne qui est sous-traitée.

10. Mandat pour avoir une activité d'audit interne (AAI)
Qui recommande principalement la mise en place d'une activité d'audit interne dans votre organisation? (plusieurs réponses possibles)

❑ L'audit interne est exigé explicitement par voie légale, réglementaire ou contractuelle; veuillez spécifier la ou les source(s) légale(s):

____

❑ Le management souhaite volontairement avoir de l'audit interne dans un souci de professionnalisme de l'organisation

❑ L'audit interne est fortement recommandé par un acteur externe, mais pas explicitement obligatoire; veuillez spécifier quel(s) acteur(s):

____

❑ Aucune obligation/aucune recommandation pour le faire

❑ Autre; veuillez spécifier: ____

11. Existence d'une activité d'audit Interne (AAI)
Sous quelle forme votre organisation assure-t-elle une activité d'audit interne proprement dite? (une seule réponse possible)

❍ Notre organisation n'a pas d'activité d'audit interne en tant que telle, mais elle a d'autres services internes qui fournissent de l'assurance[1] ; veuillez spécifier ce(s) service(s):
____ >>>> Skip to Page 9: Obstacles à l'implémentation d'un service d'audit interne
Quels sont, selon vous, les obstacles majeurs qui empêcheraient votre organisation d'adopter une activité d'audit interne? Veuillez en sélectionner trois maximum selon leur importance (1=le principal).

❍ Notre organisation n'a pas encore une activité d'audit interne en tant que telle, ni d'autres services internes qui fournissent de l'assurance >>>> Skip to Page 9: Obstacles à l'implémentation d'un service d'audit interne
Quels sont, selon vous, les obstacles majeurs qui empêcheraient votre organisation d'adopter une activité d'audit interne? Veuillez en sélectionner trois maximum selon leur importance (1=le principal).

❍ Notre organisation n'a pas encore d'activité d'audit interne mais a un projet pour développer cette activité >>>> Skip to Page 6: Veuillez préciser l'année de création du projet relatif à l'audit interne:

❍ Notre organisation a une activité d'audit interne, mais elle est entièrement effectuée/sous-traitée par un service extérieur >>>> Skip to Page 7: Veuillez indiquer quel service extérieur effectue principalement votre activité d'audit interne. (une seule réponse possible)

❍ Notre organisation dispose d'un service ou d'une fonction d'audit interne >>>> Skip to Page 8: Veuillez cocher la situation qui correspond le mieux à votre organisation. (une seule réponse possible)

[1]Par exemple un service d'inspection, d'assurance qualité, de certification, …

(End of Page 5)

11a. Veuillez préciser l'année de création du projet relatif à l'audit interne:

Année ______________

11b. Le projet est-il repris dans un document officiel de l'organisation (e.g. plan opérationnel ou stratégique d'une direction)?

❍ Oui

❍ Non

11c. Comptez-vous recourir à de la sous-traitance pour sa création?

❍ Oui

❍ Non

11d. En quelle année votre activité d'audit interne sera-t-elle mise en place?

Année: _______________

11e. Combien d'équivalent(s) temps plein avez-vous prévu pour sa première année d'existence?

Combien: _____________

(End of Page 6)

11f. Veuillez indiquer quel service extérieur effectue principalement votre activité d'audit interne. (une seule réponse possible)

❍ Un service provenant du secteur public; veuillez préciser le nom de ce service public:
____

❍ Un prestataire de services privé

(End of Page 7)

11g. Veuillez cocher la situation qui correspond le mieux à votre organisation. (une seule réponse possible)

❍ Notre organisation dispose d'un service ou d'une fonction d'audit interne qui effectue uniquement ses missions en interne

❍ Notre organisation dispose d'un service ou d'une fonction d'audit interne qui effectue des audits en interne et dans d'autres organisations. Veuillez spécifier le nombre des autres organisations qui sont audidées par votre organisation: ____________________________________

❍ Notre organisation dispose d'un service ou d'une fonction d'audit interne qui effectue uniquement des missions dans les autres organisations. Veuillez spécifier le nombre des autres organisations qui sont audidées par votre organisation: ____________________________________

(End of Page 8)

12. Obstacles à l'implémentation d'un service d'audit interne
Quels sont, selon vous, les obstacles majeurs qui empêcheraient votre organisation d'adopter une activité d'audit interne? Veuillez en sélectionner trois maximum selon leur importance (1=le principal).

	Le principal obstacle	Le 2eme obstacle le plus important	Le 3eme obstacle le plus important
Manque de moyens	❍	❍	❍
L'investissement est trop grand par rapport à sa valeur ajoutée	❍	❍	❍
Résistance au sein de l'organisation	❍	❍	❍
Le niveau de maturité du contrôle interne de l'organisation n'est pas encore suffisant	❍	❍	❍
Manque de support politique	❍	❍	❍
Manque de support du management	❍	❍	❍
Autre	❍	❍	❍

12a. Si vous avez répondu «Autre» à la question 12, veuillez spécifier:

____

____

(End of Page 9)

Taille/capacité de l'Activité d'audit interne

13. Ancienneté de l'activité d'audit interne
En quelle année a été créée votre activité d'audit interne?

Date de création: __________________________

14. Nombre d'effectifs pour l'activité d'audit interne en 2010
Combien d'effectif(s) compte votre activité d'audit interne en 2010? Veuillez indiquer pour chaque catégorie le nombre d'effectif(s) en équivalent(s) temps plein:

Responsable/directeur de l'audit interne ______

Auditeurs internes senior (minimum 5 ans d'expérience en audit interne) ______

Auditeurs internes junior (moins de 5 ans d'expérience en audit interne) ______

Personnel administratif (secrétariat) ______

Sous-traitance ______

Autre ______

14a. Si vous avez répondu «Autre» à la question 14, veuillez spécifier:

____

____

(End of Page 10)

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15. Expertise supplémentaire
A qui vos auditeurs internes font-ils généralement appel pour couvrir l'ensemble de l'expertise requise dans le cadre d'une mission d'audit complexe ou pluridisciplinaire? (plusieurs réponses possibles)

❑ Pas de recours à une expertise supplémentaire

❑ Recours à de l'expertise en interne

❑ Recours à de l'expertise dans une autre organisation publique

❑ Recours à un prestataire de service privé

16. Budget annuel de l'activité d'audit interne (AAI) en 2010
Quel est le montant des moyens budgétaires prévus en 2010 pour tous les besoins en rapport avec la mission de votre activité d'audit interne (fonctionnement/personnel, formation, logistique, projets, sous-traitance, comité d'audit, …)

❍ Montant du budget (en milliers d'euro) € _____________

❍ Je ne sais pas

17. Taux de recommandations implémentées
Veuillez indiquer en pourcentage une estimation du taux des recommandations qui ont été effectivement implémentées approximativement 1 an après une mission d'audit.

❍ Taux d'implémentation des recommandations en pourcentage: _______________

❍ Pas encore mesuré/je ne sais pas

(End of Page 11)

Activités

18. Rôles de l'auditeur interne
Pour l'ensemble des auditeurs internes de votre équipe, veuillez répartir, par une estimation en %, le temps consacré en général à la réalisation des missions suivantes:

Missions d'assurance (vérification par rapport à un référentiel) _______

Missions de consultance/participation à des projets d'amélioration pour l'organisation/conseil (en dehors des recommandations des missions d'audit) _______

Cartographie des risques _______

Animation d'ateliers de formation _______

Programme assurance qualité/amélioration continue/benchmarking de nos activités _______

Autre _______

Si vous ne savez pas, veuillez indiquer ici «100» _______

18a. Si vous avez répondu «Autre» à la question 18, veuillez spécifier:

____

____

19. Types de mission d'assurance
Veuillez indiquer quel acteur effectue principalement les missions d'audit suivantes? (veuillez choisir un seul acteur par type de mission d'audit)

	Service d'audit interne dans votre entité	Autres services au sein de votre entité	Auditeurs externes publics	Sous-traitance privée	Autre acteur	Pas d'application
Audit financier[2]	❍	❍	❍	❍	❍	❍
Audit de conformité[3]	❍	❍	❍	❍	❍	❍
Audit qualité	❍	❍	❍	❍	❍	❍

Audit opérationnel[4]	❍	❍	❍	❍	❍	❍
Audit de performance (EEE)[5]	❍	❍	❍	❍	❍	❍
Audit IT[6]	❍	❍	❍	❍	❍	❍
Autre	❍	❍	❍	❍	❍	❍

19a. Si vous avez indiqué «Autre» à la question 19, veuillez préciser ici quel(s) autre(s) acteur(s):

____

____

____

20. Domaines spécifiques
Veuillez indiquer si les domaines suivants sont aussi couverts par vos missions d'audit interne? (plusieurs réponses possibles)

❑ Elaboration de la stratégie de l'organisation

❑ Résultats de l'organisation (par rapport à ses objectifs)

❑ Gestion des risques

❑ Autres dispositifs du contrôle interne (comptabilité, qualité, tableaux de bord, ...)

❑ Gouvernance, équité

❑ Déontologie, éthique

[2]Une évaluation indépendante afin de garantir l'exactitude et la fiabilité des données financières.
[3]L'audit de conformité porte sur le respect des lois, règlements, procédures, conditions et restrictions mises à l'octroi de subventions ou à l'attribution de contrats de prestations.
[4]L'audit opérationnel examine les éléments de gestion d'une organisation (planification, organisation, direction et contrôle), c'est à dire, les objectifs et les plans, les responsabilités, les structures organisationnelles, les politiques et procédures, les systèmes et méthodes, les contrôles, et les ressources humaines et physiques.
[5]L'audit de performance examine l'utilisation des ressources pour déterminer si celles-ci sont utilisées de manière la plus Economique, Efficiente et Efficace (EEE) pour accomplir la mission et les objectifs de l'entité.
[6]L'audit IT examine les systèmes d'information d'une organisation, l'intégrité et la sécurité des données et de ses opérations.

(End of Page 12)

Formation des auditeurs internes

21. Formation académique des auditeurs internes
Si applicable, dans quel(s) domaine(s) académique(s) vos auditeurs internes ont-ils principalement obtenu leurs plus hauts diplômes. Veuillez sélectionner trois domaines maximum selon leur importance (1=le principal).

	Le principal domaine	Le deuxième	Le troisième
En audit interne	❍	❍	❍
En audit externe/comptabilité/finances	❍	❍	❍
En gestion / sciences économiques	❍	❍	❍
En droit	❍	❍	❍
Autre	❍	❍	❍

21a. Si vous avez indiqué «Autre» à la question 21, veuillez préciser ici quel(s) autre(s) domaine(s):

____

____

22. Nombre d'heure(s) de formation continue
De manière générale, quel est le nombre d'heure(s) moyen effectivement consacré à la formation pour chaque auditeur interne par année?

❍ Nombre d'heure(s): ______

❍ Pas encore de formation/pas d'application >>>> Skip to Page 15: Expérience en AI du responsable en audit interne

(End of Page 13)

23. Type de formation continue
Parmi la liste des formations ci-dessous, veuillez répartir approximativement en pourcentage celle(s) que vos auditeurs internes ont l'habitude de suivre.

Formations spécialisées en audit interne _______

Formations en compétences comportementales _______

Formations en gestion _______

Autres formations _______

(End of Page 14)

Expérience professionnelle

24. Expérience en AI du responsable en audit interne

De manière approximative, de combien d'années d'expérience en audit interne dispose votre responsable d'audit interne avant d'occuper son poste actuel? ______

25. Provenance des auditeurs internes
D'où proviennent vos auditeurs internes (sauf le responsable de l'audit interne) avant d'occuper leurs nouvelles fonctions? (si d'application, veuillez les répartir approximativement en pourcentage)

Jeune(s) diplômé(s) ______

D'un autre département interne de notre organisation ______

D'une autre organisation du secteur public ______

Du secteur privé ______

Pas d'application (par. ex. notre activité d'audit interne est sous-traitée,…); veuillez indiquer ici 100 ______

25a. D'où provient votre responsable d'audit interne avant d'occuper sa fonction actuelle? (une seule réponse possible)

❍ Jeune(s) diplômé(s)

❍ D'un autre département interne de notre organisation

❍ D'une autre organisation du secteur public

❍ Du secteur privé

❍ Pas d'application

Reconnaissance formelle de la fonction d'audit interne

26. Statut des auditeurs internes
Veuillez effectuer une estimation en % de la répartition de vos auditeurs internes qui ont un statut contractuel ou statutaire en 2010 (sauf pour le responsable de l'audit interne).

Statutaires _______

Contractuels (personnel faisant partie de votre organisation, mais avec un mandat contractuel) ______

Pas applicable (pas de personnel statutaire dans notre organisation; veuillez indiquer ici 100) ______

27. Statut du responsable de l'audit interne actuel
Quel est le statut du responsable de l'audit interne dans votre organisation en 2010? (une seule réponse possible)

❍ Statutaire

❍ Contractuel

❍ Pas de responsable de l'audit interne

(End of Page 15)

---

28. Fonction d'audit interne dans l'organigramme
La fonction d'audit interne est-elle explicitement reconnue dans l'organigramme/la structure de l'organisation? (une seule réponse possible)

❍ Non et c'est une activité partagée avec une autre fonction/activité

❍ Non et c'est une fonction séparée

❍ Oui, et c'est une fonction partagée avec une autre activité

❍ Oui, et c'est une fonction séparée

❍ Pas d'application

29. Formalisation de l'AI dans la politique du personnel
Dans quels domaines de la politique du personnel de votre organisation, la fonction d'audit interne est-elle formellement reconnue? (plusieurs réponses possibles)

❑ Dans les profils de fonction de l'organisation

❑ Dans les profils de recrutement

❑ Dans les programmes de formation (besoins en formation)

❑ Dans les systèmes/programmes d'évaluation

❑ Dans le système de promotion des carrières

❑ Pas encore de reconnaissance formelle de l'audit interne dans la politique du personnel

❑ Pas d'application

(End of Page 16)

Partie III : La gouvernance de votre activité d'audit interne

Infrastructure

30. Rattachement hiérarchique de l'activité d'audit interne
A quel niveau hiérarchique est rattachée directement votre activité d'audit interne? (une seule réponse possible)

❍ Au plus haut dirigeant de l'organisation

❍ Au Comité d'audit

❍ A une direction opérationnelle

❍ A la direction financière

❍ Autre, veuillez spécifier: ____

❍ Pas d'application

31. Présence d'un comité d'audit
Votre organisation dispose-t-elle d'un comité d'audit ou autre organe équivalent?

❍ Oui

❍ Non, mais c'est prévu >>>> Skip to Page 19: Mécanismes de coordination
Si votre activité d'audit interne est en contact régulier avec d'autres services relatifs au contrôle interne dans votre organisation ou/et avec des acteurs du contrôle externe[7], quel(s) sont les mécanisme(s) de coordination qu'elle utilise avec ces services ou acteurs? (plusieurs réponses possibles)

❍ Non >>>> Skip to Page 19: Mécanismes de coordination
Si votre activité d'audit interne est en contact régulier avec d'autres services relatifs au contrôle interne dans votre organisation ou/et avec des acteurs du contrôle externe[7], quel(s) sont les mécanisme(s) de coordination qu'elle utilise avec ces services ou acteurs? (plusieurs réponses possibles)

(End of Page 17)

Votre comité d'audit

32. Date de création du comité d'audit

❍ En quelle année votre comité d'audit a-t-il été créé? ____________

❍ Je ne sais pas

33. Nombre de membres du Comité d'audit

❍ Combien de membres compte actuellement votre Comité d'audit? __________

❍ Je ne sais pas

34. Composition des membres du comité d'audit
Parmi les acteurs mentionnés ci-dessous, veuillez indiquer lesquels siègent dans votre comité d'audit: (plusieurs réponses possibles)

❑ Représentants du gouvernement/autorité de tutelle

❑ Représentants de l'organe de gestion principal de votre organisation

❑ Représentant de l'activité d'audit interne

❑ Représentants du contrôle externe (Inspection des Finances, Cour des Comptes, …)

❑ Experts indépendants

❑ Autre, veuillez spécifier: ____

❑ Je ne sais pas

35. Mandat du Comité d'audit
Votre comité d'audit est-il mandaté par une source légale ou règlementaire?

❍ Oui

❍ Non

❍ Je ne sais pas

36. Contact avec le Comité d'audit
Votre service d'audit interne ou son responsable a-t-il fréquemment des réunions avec le président du Comité d'audit en dehors du cadre des réunions formelles?

❍ Oui

❍ Non

❍ Je ne sais pas

37. Pratiques/rôles du comité d'audit
Veuillez indiquer dans quelle mesure les pratiques ci-dessous sont appliquées dans votre comité d'audit sur une échelle d'appréciation de 1 à 5 (1=pas encore, 5=tout à fait)

	1 Pas encore	2	3	4	5 tout à fait	Je ne sais pas
Notre comité d'audit assure la coordination avec les auditeurs externes	❍	❍	❍	❍	❍	❍
Notre comité d'audit assure la coordination avec les autres fonctions de contrôle dans l'organisation	❍	❍	❍	❍	❍	❍
Le président du comité d'audit a des contacts réguliers avec le plus haut dirigeant de l'organisation (ou organe de gestion principal) en dehors des réunions formelles	❍	❍	❍	❍	❍	❍
Le processus de recrutement de ses membres est formalisé	❍	❍	❍	❍	❍	❍
Le comité d'audit a un secrétariat	❍	❍	❍	❍	❍	❍
Le comité d'audit désigne le responsable de l'audit interne	❍	❍	❍	❍	❍	❍
Le comité d'audit a une charte d'audit	❍	❍	❍	❍	❍	❍
Le comité d'audit adhère à un code d'éthique	❍	❍	❍	❍	❍	❍

(End of Page 18)

38. Mécanismes de coordination
Si votre activité d'audit interne est en contact régulier avec d'autres services relatifs au contrôle interne dans votre organisation ou/et avec des acteurs du contrôle externe[7], quel(s) sont les mécanisme(s) de coordination qu'elle utilise avec ces services ou acteurs? (plusieurs réponses possibles)

	Avec les services du contrôle interne	Avec les acteurs du contrôle externe
Protocole officiel/document de coordination	❑	❑
Réunions régulières	❑	❑
Présence de ces services/acteurs à un comité d'audit ou organe équivalent	❑	❑
Appui de ces services/acteurs sur le travail de l'audit interne	❑	❑
Coordination des plans d'audit (pour éviter le double emploi)	❑	❑
Echange de rapports d'audit	❑	❑
Autre	❑	❑
Pas d'application (pas de contact régulier)	❑	❑

38a. Si vous avez répondu «Autre» concernant les mécanismes de collaboration avec les services du contrôle interne à la question 38, veuillez spécifier:

____

____

____

38b. Si vous avez répondu «Autre» concernant les mécanismes de collaboration avec les acteurs du contrôle externe à la question 38, veuillez spécifier:

____

____

____

[7]Par exemple, la Cour des comptes, les inspecteurs des finances, les commissaires, …

(End of Page 19)

Support pour les ressources

39. Flexibilité budgétaire
Le système budgétaire de votre organisation prévoit-il un crédit budgétaire formel pour financer vos activités d'audit interne? (une seule réponse possible)

❍ Oui (par exemple une dotation propre)

❍ Non, mais c'est prévu

❍ Non, c'est par exemple un budget réaffecté, une utilisation d'un autre crédit budgétaire de l'organisation, …

40. Approbation du budget
Qui approuve en général le budget de l'activité d'audit interne de votre entité? (une seule réponse possible)

❍ L'autorité de tutelle

❍ Le Comité d'audit

❍ L'organe de gestion principal de votre organisation

❍ Une autre direction dans l'organisation

❍ Autre, veuillez spécifier: ____

❍ Je ne sais pas

❍ Pas d'application (par ex. pas de demande de budget)

41. Maîtrise de la politique du personnel
Veuillez indiquer les domaines de la politique du personnel à l'égard de l'audit interne pour lesquels votre organisation peut décider seule, c'est-à-dire sans le consentement de l'autorité de tutelle. Attribuez une appréciation sur une échelle de 5. (1= l'organisation ne décide pas du tout seule; 5 = elle décide tout à fait seule)

	1 Pas du tout seule	2	3	4	5 Tout à fait seule	Je ne sais pas	Pas d'application
Les profils de fonction	❍	❍	❍	❍	❍	❍	❍
Le niveau des salaires	❍	❍	❍	❍	❍	❍	❍
Le mode de recrutement	❍	❍	❍	❍	❍	❍	❍
La sélection des auditeurs internes (sauf le responsable)	❍	❍	❍	❍	❍	❍	❍
La sélection du responsable de l'AI	❍	❍	❍	❍	❍	❍	❍
Les conditions de promotion	❍	❍	❍	❍	❍	❍	❍
Le mode d'évaluation	❍	❍	❍	❍	❍	❍	❍
Les besoins en formation	❍	❍	❍	❍	❍	❍	❍

42. Soutien actif de la direction générale
De quelle manière la direction générale de l'organisation soutient-elle le mandat/l'importance de l'audit interne dans votre organisation? (plusieurs réponses possibles)

❑ Signature de la direction générale sur des documents officiels relatifs au mandat/à la mission de l'audit interne

❑ Initiatives de la direction générale pour communiquer et promouvoir l'importance de l'audit interne/sa valeur ajoutée

❑ Directives de la direction générale pour permettre à l'activité d'audit interne d'avoir accès aux informations et au personnel de l'organisation

❑ Autre, veuillez spécifier: ____

❑ Pas encore de soutien formel de la part de la direction générale

(End of Page 20)

Partie IV : Pratiques professionnelles de votre activité d'audit interne

43. Affiliation à l'IIA BEL ou à un autre institut professionnel équivalent
De quelle manière vos auditeurs internes sont-ils en contact avec l'IIA BEL ou un autre institut professionnel équivalent (IFACI, IRE, …)? (plusieurs réponses possibles)

❑ Affiliation

❑ Consultation de la documentation/échange d'information

❑ Participation à des formations

❑ Animation d'atelier/de formation

❑ Membres de leur conseil d'administration

❑ Autre, veuillez spécifier: ____

❑ Pas de contact régulier

44. Certificats professionnels
Si applicable, veuillez indiquer le nombre d'auditeurs internes qui ont déjà obtenu une certification dans les catégories suivantes.

Certifications attribuées par l'IIA ____

Réviseurs d'entreprise ____

Experts comptables ____

Certifications ISACA : CISA, ….. ____

Certifications ICI ____

Certifications Qualité : EFQM,….. ____

Autre ____

44a. Si vous avez répondu «Autre» à la question 44, veuillez spécifier quelle(s) autre(s) certification(s):

____

____

45. Documentation officielle de l'activité d'audit interne
Veuillez cocher les documents suivants qui ont été développés et mis à jour dans votre organisation? (plusieurs réponses possibles)

	Développé(s)	Mis à jour	Pas encore développé(s)
Charte du service d'audit interne	❑	❑	❑
Manuel de l'audit interne (procédures, méthodologies, outils)	❑	❑	❑
Charte du comité d'audit	❑	❑	❑
Procédures de reporting vis-à-vis du Comité d'audit /direction générale	❑	❑	❑
Plan stratégique de l'audit interne	❑	❑	❑
Plan annuel de l'audit interne	❑	❑	❑
Un plan sur la progression des carrières en audit interne	❑	❑	❑
Communication au public sur les activités de l'audit interne (e.g. brochure, rapport annuel, logo, site web, …)	❑	❑	❑

(End of Page 21)

46. Pratiques de gestion de votre activité d'audit interne
Veuillez indiquer quelle(s) pratique(s) de management sont appliquées par votre activité d'audit interne? (plusieurs réponses possibles)

❑ L'adhérence à un code de déontologie

❑ La mise en place d'un système de suivi des recommandations

❑ La mise en place d'un programme d'assurance Qualité et d'amélioration continue

❑ La mise en place d'outils de gestion de la performance de l'activité d'audit interne

❑ La mise en place d'un programme en gestion du personnel

❑ Pas encore d'application >>>> Skip to Page 24: Degré de planification du plan d'audit
 Dans le processus de programmation des activités d'audit interne de votre organisation, quel est le pourcentage approximatif des missions qui sont effectivement planifiées et celles qui sont introduites de manière ad hoc?

(End of Page 22)

46a. Si votre activité d'audit interne a mis en place «un programme d'assurance Qualité et d'amélioration continue», veuillez cocher les types d'évaluation qui ont déjà été réalisés dans le cadre de ce programme: (plusieurs réponses possibles)

❑ L'évaluation interne

❑ L'évaluation externe

46b. Si d'application, quand a eu lieu la dernière évaluation externe? (une seule réponse possible)

❍ Durant les 12 derniers mois

❍ De 1 à 3 ans auparavant

❍ De 4 à 5 ans auparavant

❍ Il y a plus de 5 ans

❍ Pas d'application

46c. Si votre activité d'audit interne a mis en place «des outils de gestion de la performance de l'activité d'audit interne», veuillez cocher les outils qui sont utilisés par celle-ci: (plusieurs réponses possibles)

❑ La planification des ressources humaines (e.g. timesheets)

❑ Des activités de benchmarking

❑ Des outils de monitoring concernant les missions d'audit

❑ Des tableaux de bords/indicateurs de la performance

❑ Des enquêtes de satisfaction avec les audités

❑ Autres, veuillez spécifier: ____

46d. Si votre activité d'audit interne a mis en place «un programme en gestion du personnel», veuillez cocher les programmes mis en place dans ce domaine: (plusieurs réponses possibles)

❑ Des programmes de rotations ou de stages en interne (pour mieux connaître l'organisation)

❑ Des plans de développement professionnel

❑ Un système d'évaluation de la performance individuelle

❑ Un système de promotion

❑ Autres, veuillez spécifier: ____

(End of Page 23)

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47. Degré de planification du plan d'audit
Dans le processus de programmation des activités d'audit interne de votre organisation, quel est le pourcentage approximatif des missions qui sont effectivement planifiées et celles qui sont introduites de manière ad hoc?

Actions planifiées? ______

Demandes ad hoc ? ______

48. Composition du plan d'audit de votre organisation
Veuillez indiquer les éléments principaux qui permettent d'élaborer la programmation de vos missions d'audit interne? Veuillez sélectionner trois domaines maximum selon leur importance. (1=le principal)

	Le principal	Le deuxième	Le troisième
Méthodologie basée sur l'évaluation du risque	❍	❍	❍
Requêtes de l'organe de direction	❍	❍	❍
Requêtes du comité d'audit si applicable	❍	❍	❍
Requêtes de l'autorité de tutelle	❍	❍	❍
Requêtes des auditeurs externes	❍	❍	❍
Autres demandes internes	❍	❍	❍
Planification de ressources humaines et budgétaires	❍	❍	❍
Autre	❍	❍	❍

49. Autres considérations
Pour chaque élément ci-dessous, veuillez attribuer une appréciation sur une échelle de 1 à 5 (1=pas du tout, 5=tout à fait) qui caractérise au mieux, selon vous, la situation actuelle dans votre organisation.

	1 Pas du tout	2	3	4	5 Tout à fait
Le responsable de l'activité d'audit interne a des réunions fréquentes avec la direction générale en dehors des réunions formelles	❍	❍	❍	❍	❍
Notre activité d'audit interne applique les standards «IIA»	❍	❍	❍	❍	❍
La direction générale (ou le comité d'audit s'il est présent) accorde beaucoup d'importance à l'audit interne dans le cadre de ses réunions formelles	❍	❍	❍	❍	❍
Nos auditeurs internes ont entièrement accès à l'information et au personnel pour mener à bien leurs missions	❍	❍	❍	❍	❍
Notre activité d'audit interne est entièrement indépendante et objective	❍	❍	❍	❍	❍
Notre service d'audit interne est une partie intégrante du processus de gouvernance pour fournir de l'information fiable	❍	❍	❍	❍	❍

au management.					
Le département d'audit interne dispose de moyens budgétaires et humains suffisants pour mener à bien sa mission	❍	❍	❍	❍	❍
Le service d'audit interne dispose d'un soutien entier de la part de la direction générale pour mener à bien son mandat	❍	❍	❍	❍	❍

(End of Page 24)

Partie V : Contact

Nous vous remercions d'avoir participé à l'enquête. Nous ne manquerons pas de vous tenir au courant des résultats de cette étude.

50. Veuillez mentionner le nom et l'email de la personne à qui nous pourrions demander des informations complémentaires et envoyer les détails concernant la communication des résultats de cette étude.

Nom de la personne de contact ____________________________________

Email de la personne de contact ____________________________________

51. Afin d'approfondir notre étude, nous souhaiterions vérifier ou obtenir quelques informations d'ordre plus général concernant le profil de votre organisation (par exemple le nombre total d'effectifs, le montant du budget annuel, le type de mission, nature juridique, …). A quelle personne de votre organisation pourrions-nous adresser ces questions?

❑ Nom de la personne de contact ____________________________________

❑ Email de la personne de contact ____________________________________

❑ Je ne sais pas

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Si vous avez besoin d'une assistance pour répondre à une question, veuillez contacter Diane van Gils au 0494 92 74 46, disponible tous les jours avant 14h ou par email (diane.vangils@uclouvain.be).

A. Nom de l'organisation

Veuillez spécifier le nom complet de votre organisation.

Veuillez écrire votre réponse ici :

B. Statut juridique de l'organisation

Veuillez spécifier le statut juridique* actuel de votre organisation de manière la plus précise possible.

Veuillez écrire votre réponse ici :

*Par exemple une administration communale, un service public fédéral, une organisation d'intérêt public de type B, une société anonyme de droit public, un service d'état à gestion séparée, une intercommunale de type "asbl", **...**

C. Autorité de tutelle principale

Quel est le nom de l'entité ou du département de l'autorité de tutelle principale de votre organisation, c'est à dire son partenaire principal pour les échanges d'information et qui a un certain rôle dans le pilotage de votre organisation? Si c'est un ministre, ou autre représentant du gouvernement exécutif qui supervise directement votre organisation sans que cela possible de mentionner une entité ou un département, veuillez alors indiquer uniquement sa fonction.

Veuillez écrire votre(vos) réponse(s) ici :

Nom/département de l'entité de l'autorité de tutelle

…

Si pas d'application, fonction du ministre ou autre représentant du gouvernement. (*Par exemple un Bourgmestre, un Gouverneur ou une fonction d'un Ministre comme le Ministre des Finances ou le Ministre de la Justice.)*

…

D. Ancienneté de l'organisation

Quelle est l'ancienneté de votre organisation (avec son statut juridique actuel)?

Veuillez sélectionner **une seule** des propositions suivantes :

	0 à 5 an(s)
	6 à 15 ans
	16 à 50 ans
	Plus de 50 ans
	Je ne sais pas

F. Fonction principale de l'organisation

Quelle est la fonction principale exercée par votre organisation?

Veuillez sélectionner **une seule** des propositions suivantes :

	Elaboration des politiques
	Attribution de fonds financiers
	Régulation - Contrôle- Inspection
	Prestation de services
	Autre

Si vous avez répondu « Autre » à la question précédente, veuillez préciser ici quelle autre fonction principale :

…

G. Nombre de postes ETP

De manière approximative, quel est l'effectif actuel de votre organisation en équivalent(s) temps plein? Si votre organisation comprend plusieurs entités, veuillez ne reprendre que les entités qui ont la même entité juridique que votre organisation.

Veuillez écrire votre réponse ici :

…	**ETP**

H. Budget annuel total de l'organisation

Quel est le montant du budget annuel total dont dispose votre organisation pour 2010? Le budget annuel total comprend par exemple le budget de fonctionnement, les investissements, les projets, **...**

Veuillez écrire votre réponse ici :

…	**millions d'euros**

I. Principales sources de recettes

Veuillez indiquer une estimation du pourcentage de chaque source de recettes dans le revenu/budget total de votre organisation.

Veuillez écrire votre(vos) réponse(s) ici :

Allocations budgétaires provenant de l'autorité de tutelle	0%
Allocations budgétaires provenant d'une autre autorité belge	0%
Fonds provenant des autorités européennes	0%
Recettes propres (taxes, recettes d'exploitation, …)	0%
Autre(s) source(s) principale(s) de recettes	0%
Je ne sais pas. Veuillez alors indiquer ici "100"	0%

Si vous avez répondu "Autre(s) source(s) de recettes" à la question précédente, veuillez préciser :

Veuillez écrire votre réponse ici :

…

Merci d'avoir complété ce questionnaire.

5.9 Appendix "Survey report for the colloquium on federal reforms in the Belgian public sector"(in French)

Appel à communications– CERAP

Colloque

« Les réformes de l'administration vues d'en bas »

Bruxelles, Mai 2009

L'audit interne dans l'administration fédérale en Belgique : cadre institutionnel et état d'implémentation

En Belgique, les services d'audit interne ont été pour la plupart implantés dans les administrations publiques suite à des réformes managériales. Ces réformes visent à améliorer la performance des administrations publiques, celle-ci étant intimement liée à la crédibilité et à la légitimité de l'action publique (De Visscher et Petit, 2002). Au niveau fédéral, la réforme Copernic (1999-2002), et, les textes gouvernementaux qui ont suivi, ont rendu obligatoires les activités d'audit interne pour tous les départements ministériels et les services qui en dépendent, ainsi que pour la majorité des organismes fédéraux de type A. A ce jour, malgré ces réformes administratives, les activités d'audit interne ne se sont toujours pas généralisées au niveau fédéral, et, toutes les structures proposées par les arrêtés royaux en matière d'audit interne ne sont toujours pas d'application.

La présente communication a pour objet, d'une part, de décrire le développement de l'audit interne au niveau fédéral belge au regard des dernières décisions gouvernementales à ce sujet, d'autre part, de d'écrire son niveau d'implémentation actuel dans les administrations fédérales. La présente communication n'abordera toutefois pas les raisons du décalage mentionné ci-dessus, mais elle proposera quelques hypothèses pour susciter le débat.

Cette communication reprend essentiellement des extraits de notre article relatif à l'audit interne en Belgique publié récemment dans la revue Pyramide[1] , en ajoutant toutefois quelques mises à jour. L'article a été rédigé à partir des données empiriques et des entretiens qualitatifs provenant d'une enquête réalisée en février 2008 par notre équipe , conjointement avec la KULeuven, à la demande de l'Institut d'Auditeurs Internes Belgique (IIABEL), sur les pratiques de l'audit interne dans les administrations fédérales, régionales et communautaires. L'échantillon incluait toutes les entités de l'administration centrale de chaque niveau d'autorité publique et quelques agences décentralisées.

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[1] Diane van Gils, Christian de Visscher, Gerrit Sarens, Jürgen Spanhove, L'organisation des activités d'audit interne dans les différentes autorités publiques en Belgique, *Revue Pyramides*, n° 15, 2008

Nous commencerons d'abord par un rappel succinct du contexte de l'audit interne et de sa position dans la chaîne de contrôle interne, ensuite nous aborderons la description empirique de l'état des lieux de l'audit interne au niveau fédéral concernant les mandats et niveau d'implémentation. … (pour la description, voir Van Gils et. al, 2008)

<u>Discussion sur l'audit interne au niveau fédéral</u>

A ce jour, malgré ces réformes administratives, d'une part, les activités d'audit interne ne se sont pas encore généralisées au niveau fédéral, d'autre part, toutes les structures proposées par les arrêtés royaux en matière d'audit interne ne sont toujours pas d'application.

Malgré la légère hausse des activités d'audit interne dans les administrations publiques suite aux derniers arrêtés royaux en la matière (2007), notons une hausse considérable de ces activités au sein des organismes d'intérêt public : quatre des cinq organismes publics visés dans les arrêtés royaux de 2007 viennent de mettre en place des activités d'audit interne ou vont le faire très prochainement.

Notons également que notre enquête n'a pas encore abordé l'examen des établissements scientifiques visés par les arrêtés royaux en matière d'audit interne.

Afin de susciter le débat et les recherches futures sur les raisons de ces décalages révélés par notre étude, nous proposons, ci-dessous, et, à titre exploratoire, une liste indicative d'hypothèses, provenant, soit de la littérature, soit de nos entretiens. Celles-ci seront davantage élaborées et mises à jour, à l'occasion de ce colloque, et, dans le cadre d'un projet doctoral en cours.

- La crise politique majeure au niveau fédéral pourrait expliquer les retards d'implémentation des derniers arrêtés royaux en la matière. Par exemple le « Service Management Support » au sein du service public fédéral « Budget et Contrôle de Gestion » a développé en 2008 toutes les procédures permettant la mise en place du CAAF, mais cette procédure d'implémentation est tributaire de l'approbation du nouveau conseil des ministres, qui était inexistant pendant une longue période, accumulant ainsi des retards d'implémentation dans plusieurs sphères administratives.

- L'adoption et le suivi des obligations et recommandations émises dans les normes, règlements et autres types de mandats ne fonctionnent en général que s'il y a présence en parallèle d'un système d'incitants et de sanctions adéquats (Scott, 1994).

Aucune sanction ne semble en effet avoir été clairement prévue dans l'élaboration des réformes relatives à l'audit interne au fédéral. Le faible déploiement des activités d'audit internes dans l'administration fédérale peut-il dès lors s'expliquer en partie par des programmes de réforme encore trop incomplets?

– Plus un organisme est dépendant, plus il sera enclin à suivre la culture, les pratiques et les obligations de l'institution dont il dépend (DiMaggio et Powell, 1983). Par exemple ces auteurs affirment qu'une entité qui reçoit des fonds importants, a tendance, non seulement à suivre rigoureusement les obligations légales stipulées par l'entité donatrice, mais également, à rendre plus convergent, de manière explicite ou implicite, son système administratif avec la culture et les pratiques administratives de l'entité donatrice dans le but évident de favoriser l'aval des fonds (DiMaggio et Powell, 1983 ; Meyer et al. 1994). Dans notre cas, prenant en considération l'un des résultats de notre étude empirique, à savoir le taux d'adoption des activités d'audit interne proportionnellement plus élevé dans les organismes décentralisés au niveau fédéral, il serait opportun de tester cette hypothèse à l'ensemble des organisations au fédéral, mais aussi avec les mandats relatifs à l'audit interne provenant d'autres autorités publiques en Belgique. On pourrait par exemple catégoriser les organisations administratives sur une échelle de gradation basée sur la notion de dépendance par rapport à l'institution « parentale » ou donatrice et le rapport avec le statut d'adoption d'une activité d'audit interne de celles-ci.

– Le développement des activités d'audit interne au niveau fédéral pourrait également dépendre de l'importance du rôle des acteurs du contrôle externe dans la chaîne de contrôle au fédéral (par exemple, l'Inspection des Finances ou la Cour des Comptes) et de leur comportement à l'égard de celles-ci. En effet, premièrement, et de manière générale, les réformes managériales du secteur public tendent dans ce contexte à renforcer le processus de contrôle par l'inclusion de nouvelles entités soumises à contrôle, par un nombre croissant d'activités de contrôle touchant des domaines de plus en plus variés et une chaîne de l'*accountability* de plus en plus complexe. Power (1999) caractérise ce phénomène d' «audit explosion», lequel débouche sur un climat de confusion et des dysfonctionnements dans le processus de monitoring de la performance publique: manque de clarté dans les mécanismes pour rendre compte, double-emploi des activités de contrôle ou comportements de concurrence entre les organes de contrôle dont les rôles et activités sont ou semblent parfois similaires (Power, 1999 ; Lapsley, 1995). Dans un contexte similaire, d'autres études démontrent que dans des organisations sujettes à un contrôle externe relativement important et formalisé, celles-ci ne voient pas directement l'avantage comparatif d'avoir des auditeurs internes ou autres spécialistes du contrôle interne et donc n'en disposent pas (Al-Twaijry et al. 2003 ; Meyer, 1994). Par la même occasion, Meyer nous fait remarquer dans le cadre de son étude relative à l'adoption ou non d'experts comptables dans des organisations: "Accounting, with a perspective on reality independent of the legitimate bureaucratic rules, would seem a bit redundant, or even potentially disruptive, because the accounting story and the official one would almost certainly diverge" (Meyer, 1994:p129). Plusieurs répondants de notre enquête nous font part également de ce climat d'ambiguïté, mais des entretiens plus approfondis mériteraient d'être lancer pour valider plus empiriquement cette perception de malaise dans la relation entre l'auditeur interne et externe.

Deuxièmement, d'autres études empiriques, provenant surtout des Etats-Unis, d'Australie et du Canada où la profession d'audit interne est plus ancienne, ont mis en lumière qu'une bonne relation entre les auditeurs externes et internes augmente, certes, l'efficience et la qualité de l'audit en général, mais que, même s'il existe des standards pour réguler leur collaboration, celle-ci n'est cependant souvent pas spontanée (Brody et al. 1998). A partir de ces constats, se pose dès lors la question des conditions à réunir, dans le cadre d'une réforme de ce genre, pour atteindre une coordination efficace et harmonieuse entre les différents acteurs de la chaîne du contrôle au sein de l'administration publique belge. Au niveau fédéral, les entretiens nous ont révélé qu'il n'y a pas encore à ce jour un cadre institutionnalisé concernant la gouvernance globale de la chaîne de contrôle. L'un des objectifs de l'AR de 2007 fut, comme mentionné plus haut, justement d'initier un cadre, en prenant comme référence la philosophie et l'application du single audit telle décrite par la Cour des comptes européenne[1]. Les premiers entretiens de notre enquête nous ont révélé qu'un « single audit » au niveau fédéral est encore loin d'aboutir, mais des pistes de convergence sont actuellement envisagées comme par exemple la constitution d'un protocole d'accord entre l'Inspection des Finances, le futur Comité d'audit et les ministres du SPF « Budget et contrôle de gestion » et du SPF « Personnel et Organisation », partant de l'*AR du 16 novembre 1994 relatif au contrôle financier et budgétaire* explicitant, entre autres, les compétences de l'Inspection des finances et l'obligation de collaborer avec les auditeurs internes.

– D'autres auteurs tentent d'expliquer l'adoption favorable d'un service d'audit interne par une organisation, en mettent l'accent plutôt sur des facteurs internes à une organisation comme par exemple la taille, le niveau de gouvernance et la culture d'évaluation, en particulier la gestion des risques (Goodwin et Kent, 2004 ; Sarens, 2009).

[1] Voir Cour des Comptes européenne, avis 2/2004, JO 2004/C107/O2.

Bibliographie de la communication

Al-Twaijry, A.M., Brierley, J.A., Gwilliam, « The Development of Internal Audit in Saudi Arabia : an Institutional Theory Perspective », *Critical Perspective on Accounting*, vol.14, 2003, pp507-31.

Arena, M., Azzone, G., « Internal Audit Departments: Adoption and Characteristics in Italian Companies », *International Journal of Auditing*, vol. 11, 2007, pp91-114.

Brody, R.G., Golen, S.P., Reckers, P.M.J., « An Empirical Investigation of the Interface between Internal and External Auditors », *Accounting and Business Research*, Vol. 28, No 3, 1998, pp.160-71.

de Visscher, C., Petit, L., « L'audit interne dans l'administration publique : un état des lieux dans les ministères fédéraux », *Pyramides*, n°5, 2002, pp. 74-100.

DiMaggio P.J., Powell W.W., The Iron Cage Revised: Institutional Isomorphism and Collective Rationality in Organizational fields, *American Sociological Review*, Vol. 48, n°2, 1983, pp147-60.

Goodwin-Stewart, J., Kent P., The use of internal audit by Australian companies, *Managerial Auditing Journal*, vol. 21, 2004, pp.81-101.

IFACI, *Normes internationales pour la pratique professionnelle de l'audit interne*, 2004.

Institute of Internal Auditors (IIA), *The Audit Committee: Purpose, Process, Professionalism*, date non mentionnée.

Lapsley, I., « Audit and Accountability in the Public Sector : Problems and Perspectives », *Financial Accountability and Management*, Vol.11, n°2, 1995, pp107-110.

Meyer J.W., Scott, W.R., Strang, D., « Centralization, Fragmentation, and School District Complexity » in : Scott, R., Meyer J.W. and Associates (Ed.), *Institutional Environments and Organizations*, London, New Delhi, Sage Publications, 1994, pp160-178.

Meyer, J.W., « Social Environments and Organizational Accounting » in: Scott, R., Meyer J.W. and Associates (Ed.), *Institutional Environments and Organizations,* London, New Delhi, Sage Publications, 1994, pp121-59.

Organisation Internationale des Institutions Supérieures de Contrôle des Finances Publiques (INTOSAI), *Lignes directrices sur les normes de contrôle interne à promouvoir dans le secteur public*, 2004.

Power, M., *The Audit Society: Rituals of Verification*, New York, Oxford University Press, 1999.

Renard, J., *Théorie et pratique de l'audit interne*, Paris, Editions d'Organisation, 2008.

Sarens, G., De Beelde, I., Everaert, P., "Internal Audit: the Expert in Providing Comfort to the Audit Committee – the Case of Risk Management and Internal Control", *Working Paper*, Université Catholique de Louvain, 2008.

Sarens, G., « Internal auditing research: where are we going? - Editorial note», *International Journal of Auditing*, vol. 13, n°1, 2009, page 1-7.

Scott, R., Meyer J.W. and Associates (Ed.), *Institutional Environments and Organizations,* London, New Delhi, Sage Publications, 1994

Sterck, M., Scheers, B., Bouckaert, G., *The Modernization of the Public Control Pyramid: International Trends*, Leuven, Policy Research Center, 2005.

van Gils, D., de Visscher, C., Sarens, G., Spanhove , J., « L'organisation des activités d'audit interne dans les différentes autorités publiques en Belgique », *Pyramides*, n° 15, 2008, pp.95-124.

6. Bibliography

Aiken, M., Hage, J. (1968) "Organizational Interdependence and Intra-Organizational Structure", *American Sociological Review*, 33, 912-930.

Arena, M., Azzone, G. (2007) "Internal Audit Departments: Adoption and Characteristics in Italian Companies", *International Journal of Auditing*, 11(2), 91-114.

Banque Nationale de Belgique (2009) *Les unités du secteur public, mise à jour 30.09.2009.*

Batselé, D., Mortier, T., Scarcez (2010) *Manuel de droit administratif (*Bruxelles, ed. Bruylant).

Beaud, S., Weber, F. (2003). *Guide de l'enquête de terrain : produire et analyser des données ethnographiques.* Paris : Éditions La Découverte.

Blom-Hansen, J. (1997) "A New Institutional' Perspective on Policy Networks", *Public Administration*, 75 (4), 669-693.

Bouckaert, G., Peters, B.G. (2004) "What is available and what is missing in the study of quangos?" in C. Pollitt and C. Talbot (eds.), *Unbundled Government. A critical analysis of the global trend to agencies, quangos and contractualisation* (London, New York: Routledge).

Bou-Raad, G. (2000) "Internal Auditors and a Value-added Approach: the New Business Regime", *Managerial Auditing Journal*, 15(4), 182-186.

Bozeman, B. (1987) *All Organizations Are Public. Bridging Public and Private Organizational Theories (*San Francisco, London, Jossey-Bass Publishers).

Brody, R.G., Golen, S.P. & Reckers, P.M.J. (1998), "An empirical investigation of the interface between internal and external auditors", *Accounting and Business Research*, Vol. 28, No. 3, 160–172.

Bromley, P., Powell, W.W., Hwang, H. (forthcoming) *The Paradox of Institutionalization: Common determinants and divergent consequences of strategic planning in the nonprofit sector*. Earlier versions presented at the 2009 American Sociological Association Annual Meetings, San Francisco, CA and 2008 Academy of Management.

Burnaby, P., Hass, S., Abdolmohammadi, M.J. (2006) "A survey of Internal Auditors to Establish the Scope of the Common Body of Knowledge Study in 2006", *Managerial Auditing Journal,* 21 (8), 854-868.

Carhill, K.M., Kincaid, J.K. (1989) "Applying the Standards in Governmental Internal Auditing", *The Internal Auditor,* 52 (6), 63-65.

Carpenter, D. (2001) *The Forging of Bureaucratic Autonomy. Reputations, Networks and Policy Innovation in Executive Agencies, 1862–1928 (*Princeton and Oxford: Oxford University Press).

Christensen, J.G., K. Yesilkagit (2006) "Delegation and Specialization in Regulatory Administration: A Comparative Analysis of Denmark, Sweden and the Netherlands" in: T. Christensen, & Lægreid, P. (eds.) *Autonomy and Regulation. Coping with Agencies in the Modern State*, Edward Elgar, Cheltenham, 203-234.

Colyvas, J., Powell, W. (2006) “Roads to Institutionalization: The Remaking of Boundaries between Public and Private Science”. *Research in Organizational Behavior*, 27, 315-363.

Coupland, D. (1993) "The Internal Auditor's Role in Public Service Orientation", *Managerial Auditing Journal*, 8 (1), 3-13.

Damar, M., Delaunois, P. (1988) "Les organismes d’intérêt public en Belgique", *Courrier hebdomadaire du CRISP*, n°1191-1192.

De Visscher, C., Petit, L. (2002) "L’audit interne dans l’administration publique : un état des lieux dans les ministères fédéraux", *Pyramides*, 5, 74-100.

DiMaggio, P.J., Powell, W.W. (1983) “The Iron Cage Revised: Institutional Isomorphism and Collective Rationality in Organizational fields”, *American Sociological Review*, 48(2), 147-60.

Dobbin, F., Edelman, L., Meyer, J., Scott, W. R., Swidler, A. (1988) "The Expansion of Due Process in Organizations." in *Institutional Patterns and Organizations: Culture and Environment (*Edited by Lynne G. Zucker. Cambridge, MA: Ballinger), 71-98.

Egeberg, M. (1994) “Bridging the gap between theory and practice: the case of administrative policy”, *Governance*, 7, 83-98.

European Confederation of Institutes of Internal Auditing (2005)*,* “Internal Auditing in Europe”, *position paper.*

Council of Europe (1999), Local and Regional Democracy, “Internal Audit at Local and Regional Level*”, report.*

Feldman, M. S. and Pentland, B. T. (2003) “Reconceptualizing Organizational Routines as a Source of Flexibility and Change,” *Administrative Science Quarterly,* 48(1), 94-118.

Felix, W., A. Gramling, Maletta, M. (2001). “The contribution of internal audit as a determinant of external audit fees and factors influencing this contribution” *Journal of Accounting Research.* December, 513-534.

Frumkin, P., Galaskeiwicz, J. (2004) ”Institutionalial isomorphism and public sector organizations”, *Journal of Public Administration Research and Theory*, 14(3), 283-307.

Galaskiewicz, J., Wasserman, S. (1989) “Mimetic Processes within an Interorganizational Field: An Empirical Test.” *Administrative Science Quarterly*, 34, 454-479.

George, A.L., Andrew Bennett, A. (2005) *Case Studies and Theory Development in the Social Sciences* (Cambridge, Mass. The MIT Press).

Global Audit Information Network (GAIN), Knowledge Alert (2009), *The Financial Crisis and Its Impact on the Internal Audit Profession*, The Institute of Internal Auditors Research Foundation

Goodwin, J. (2004) "A comparison of IA in the private and public sectors", *Managerial Auditing Journal*, 19, 640-50.

Goodwin, J., Kent, P. (2004) *Factors affecting voluntary use of IA*, working paper (University of Queensland).

Greif, A. (2006), “Institutions and the Path to the Modern Economy: Lessons from Medieval Trade” (Cambridge University Press).

Grofman, B. and Schneider, C. Q. (2009) “An Introduction to Crisp Set QCA, with a Comparison to Binary Logistic Regression”, *Political Research Quarterly*, 62, 662-672.

Gupta, P.P., Dirsmith, M.W., Fogarty, T.J. (1994) "Co-ordination and control in a government agency: contingency and institutional perspectives on GAO audits", *Administrative Science Quarterly*, 39, 264-84.

Hannan, M.T., J. Freeman, J. (1989) "Organizations and Social Structure" in Organizational Ecology, (Cambridge, Harvard, U. Press), 3-27.

Haunschild, P.R. (1993) “Interorganizational imitation: the impact of interlocks on corporate acquisition activity”, *Administrative Science Quarterly* , 38, 564 - 92.

Haveman, H.A. (1993) Following the leader: Mimetic isomorphism and entry into new markets, *Administrative Science Quarterly* , 38, 593-627.

Hawley, A. (1968) "Human ecology." in David L. Sills (ed.), International Encyclopedia of the Social Sciences (New York: Macmillan), 328-37.

Humphrey, W. (1989) *Managing the Software Process (*Addison Wesley).

IFACI (2004) *Normes internationales pour la pratique professionnelle de l'audit interne.*

Institute of Internal Auditors (2004), *International Standards for the Professional Practice of Internal Auditing*.

Institute of Internal Auditors (2006), *Common Body of Knowledge (CBOK) survey, (*Altamonte Springs: The Institute of Internal Auditors Research Foundation).

Institute of Internal Auditors (2009), A Capability Model (IA-CM) for the Public Sector, (Altamonte Springs: The Institute of Internal Auditors Research Foundation).

INTOSAI (2004) *Lignes directrices sur les normes de contrôle interne à promouvoir dans le secteur public*.

Jacob S., Varone, F. (2003), *Évaluer l'action publique: état des lieux et perspectives en Belgique,* (Gand: Academia Press).

Jensen, M. C., Meckling, W. H. (1976) "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure", *Journal of Financial Economics,* 3 (4), 305–360.

Kvale, S., Brinkman, S. (2009) “*InterViews: Learning the craft of qualitative research interviewing”* (Second ed.). Thousand Oaks: Sage.

Katz, A., Vom Hau, M., and Mahoney, J. (May 2005), "Explaining the Great Reversal in Spanish America: Fuzzy Set Analysis Versus Regression Analysis", *Sociological Methods and Research*, 33 (4), 539-573.

Krogstad, J.L., Ridley, A.J., Rittenberg, L.E. (1999) “Where We Are Going”, *The Internal Auditor, 27-33.*

Lonti, Z. (2005) “How Much Decentralization ? Managerial Autonomy in the Canadian Public Service”, *American Review of Public Administration,* 35 (2), 122-136.

Mat Zain M., Subramaniam N., (2007) “Internal Auditors Perceptions on AuditCommittee Interactions: A Qualitative Study in Malaysian Public Corporations”, *Corporate Governance: An International Review,* 15(5), 894–908.

Meyer, J.M., Rowan, B. (1977) “Institutionalized Organizations: Formal Structure as Myth and Ceremony”, *The American Journal of Sociology,* 83(2), 340-63.

Meyer, J.M. (1979) "The impact of the centralization of educational funding and control on state and local organizational governance." Stanford, CA: Institute for Research on Educational Finance and Governance, Stanford University, Program Report No. 79-B20.

Miles, M., & Huberman, A. M. (1994) “*Qualitative data analysis: An expanded sourcebook”* (Second ed.). Thousand Oaks: Sage.

OECD (2005) *Public sector modernization: Modernising accountability and control,* policy brief (Paris: OECD).

Osborne, S. (1998) *Voluntary Organizations and Innovation in Public Services (*London and New York: Routledge).

Paape, L. (2007) *Corporate Governance: The Impact on the Role, Position, and Scope of Services of the IA Function (*Erasmus Research Institute of Management).

Peters, G. B. (1999) *Institutional Theory in Political Science. The "New Institutionalism*." (London: Continuum).

Pfeffer, J., Salancik, G. (1978) "The External Control of Organizations: A Resource Dependence Perspective" (New York: Harper & Row).

Pollitt, C.,Bouckaert, G. (2004) *Public management reform: A comparative analysis (*Oxford: Oxford University Press).

Pollitt, Ch., Talbot, C., Caulfield, J., Smullen, A (2004) *Agencies: How Governments Do Things through Semi-Autonomous Organizations (* Basingstoke, UK:Palgrave Macmillan).

Powell, W.W., DiMaggio, P.J. (eds.) (1991) *The New Institutionalism in Organizational Analysis*. (Chicago and London: The University of Chicago Press).

Power, M. (1999) *The Audit Society: Rituals of Verification (*New York: Oxford University Press).

Ragin, C. C. (1987) *The Comparative Method: Moving Beyond Qualitative and Quantitative Strategies*, Berkeley, University of California.

Ragin, C. C. (2000). *Fuzzy-Set Social Science* (Chicago & London: The University of Chicago Press).

Rainey, H.G. (1989) "Public Management: Recent Research on the Political Context and Managerial Roles, Structures, and Behaviors", *Journal of Management*, 15 (2), 229-250.

Rainey, H.G., and Bozeman, B. (2000) "Comparing Public and Private Organizations: Empirical Research and the Power of the A Priori", Journal of Public Administration Research and Theory, 10 (2), 447-470.

Renard, J. (2008) *Théorie et pratique de l'audit interne (*Paris, Editions d'Organisation).

Renders, D. (2010) *Droit administratif - Le contrôle de l'administration (*Ed. Larcier), tome 3.

Rihoux, B., and Lobe, B. (2009) "The Case for Qualitative Comparative Analysis (QCA): Adding Leverage for Thick Cross-Case Comparison", in BYRNE, David and RAGIN, Charles(eds), The Sage Handbook of Case-Based Methods, (London, Sage), 222-243

Rihoux, B., and RAGIN, C.C. (eds) (2009), *Configurational Comparative Methods. Qualitative Comparative Analysis (QCA) and Related Techniques*, Applied Social Research Methods, 51. (Thousand Oaks and London, Sage).

Rihoux, B., BOL, D., and REZSÖHAZY, I. (2011), "Qualitative Comparative Analysis (QCA) in Public Policy Analysis: an Extensive Review", *German Policy Studies, 7(3).*

Rittenberg, L.E., Covaleski M. (1999) "*Outsourcing the IA Function: The British Government Experience with Market Testing",* International Journal of Auditing, 3(3), 225-235.

Roness, P.G. (2007) "Types of State Organizations: Arguments, Doctrines and Changes beyond New Public Management" in Christensen, T. and Laegreid, P. (eds) *Transcending New Public Management: The Transformation of Public Sector Reforms* (Aldershot: Ashgate), 65-88.

Roness, P.G., Rubecksen, K., Verhoest, K., Verschuere, B., MacCarthaigh, M. (2007), *Explaining autonomy of public sector agencies in Norway, Ireland and Flanders*, paper presented at the EGPA Annual Conference, Madrid 19-22 September 2007.

Sarens, G, De Beelde, I. (2006) "The relationship between internal audit and senior management: an analysis of expectations and perceptions", *International Journal of Auditing*, 10 (3), 219-241.

Sarens, G. (2009), "Internal Auditing Research: Where Are We Going? - Editorial note", *International Journal of Auditing*, 13 (1),1-7.

Sarens,G, De Beelde, I, Everaert, P. (2008) *Internal Audit: the Expert in Providing Comfort to the Audit Committee – the Case of Risk Management and Internal Control*, working paper.

Sarens, G., De Visscher, Ch., and Van Gils, D. (2010) "Risk Management and Internal Control in the Public Sector: An In-Depth Analysis of Belgian Social Security Public Institutions", *Bulletin de Documentation*, SPF Finances (3).

Schneider, C., Q., Rohlfing, I. (2012 forthcoming), *Set-Theoretic Methods and Process Tracing in Multi-Method Research: Principles of Case Selection after QCA*.

Scott, W. R. (1995) *Institutions and Organizations (*London: Sage).

Scott, W.R. (1987) "The Adolescence of Institutional Theory", *Administrative Science Quarterly*, 32 (4), 493-511.

Scott, W.R., Meyer J.W. and Associates (Ed.) (1994) *Institutional Environments and Organizations* (London, New Delhi, Sage Publications).

Sterck, M., Bouckaert, G. (2006) "International Audit Trends in the Public Sector", *Internal Auditor.*

Sterck, M., Scheers, B., Bouckaert, G. (2005) *The Modernization of the Public Control Pyramid: International Trends.* Report from the research group financial management, performance measurement and performance management (Leuven: Policy Research Centre – Governmental organization in Flanders).

Thompson, J. (1967) "Organizations in Action." (New York: McGraw-Hill).

Tolbert, P. S. (1985) "Institutional Environments and Resource Dependence: Sources of Administrative Structure in Institutions of Higher Education", *Administrative Science Quarterly*, 30 (1), 1-13.

Tolbert, P., Zucker, L. (1983) "Institutional Sources of Change in the Formal Structure of Organizations: The Diffusion of Civil Service Reform, 1880-1935", *Administrative Science Quarterly*, 28(1), 22-39.

Torfing, (2001) "Path-dependent Danish welfare reforms: The contribution of the new tnstitutionalisms to understanding evolutionary change", *Scandinavian Political Studies*, 24 (4), 277-309.

Van Gestel, N., Teelken, Ch, (2006) "Neo-institutional perspectives on public management reform", *Management International* , 10 (3), 99-109.

Van Gils, D. Christiaens, J., Hex, R. (November 2010) Enquête 2010 sur l'audit interne dans les entités publiques belges (Brussels, IIABEL), working document.

Van Gils, D., de Visscher, C., Sarens, G., Spanhove , J. (2008) "L'organisation des activités d'audit interne dans les différentes autorités publiques en Belgique", *Pyramides*, 15, 95-124.

Van Heldenn, G.J. (2005) "Researching Public Sector Transformation: The Role of Management Accounting", *Financial Accountability & Management, 21(1), 99-133.*

Verhoest, K., Peters, B., Bouckaert, G., Verschueren, B. (2004a), "The Study of Organisational Autonomy: A Conceptual Review" , *Public Administration and Development,* 24, 101–118.

Verhoest, K, Verschurere, B, Peters, B.G., Bouckaert G. (2004b) Controlling Autonomous Public Agencies as an Indicator of New Public Management.

Verhoest, K., Roness, Paul, G., Verschuere, B., Rubecksen, K., MacCarthaigh, M. (2010) *Autonomy and Control of State Agencies - Comparing States and Agencies* (Palgrave MacMillan, Public Sector Organizations).

Verhoest, K., Verschuere, B., Bouckaert, G. (2007) “Pressure, legitimacy and innovative behaviour by public organisations”, *Governance: an International Journal of Policy and Administration*, 20 (3),469-498.

Wagemann, C., and Schneider, C., (2006) “Reducing Complexity in Qualitative Comparative Analysis (QCA): Remote and Proximate Factors and the Consolidation of Democracy”, *European Journal of Political Research, 45,* 751-786.

Wagemann, C., and Schneider, C.Q. (2010), "Standards of Good Practice in Qualitative Comparative Analysis (QCA) and Fuzzy-Sets", *Comparative Sociology*, 9 (3), 397-418.

Yiannakas, A., Selim, G. (2000) “Outsourcing the IA Function: A Survey of the UK Public and Private Sectors”, *International Journal of Auditing*, 4(3), 213 – 226.

Zucker, L. G. (1987) “The Role of Institutionalism in Cultural Persistence”, *American Sociological Review*, 42(5), 726–743.