

Chapter 2

E-Procurement, from Project to Practice: Empirical Evidence from the French Public Sector

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Abstract Public procurement constitutes a significant portion of national PIB in all countries and electronic platforms for supporting public transactions are an important application of e-government. In France, new regulations since 2005 are pushing public and private actors to adopt electronic means for handling all steps of the purchase process in public organisations. Based on quantitative and qualitative surveys made between 2005 and 2008, this chapter presents the general topic of e-procurement and specifically discusses the problem of e-procurement adoption in public institutions in France. The conclusions of these investigations spanning a three years period, are that public e-procurement is constantly progressing, although difficulties related to insufficient technical skills and the complexity of the juridical context hinder seriously its full adoption. They also show that a digital and an organisational divide is appearing between big administrations which have the adequate resources and skills to fully adopt e-procurement, and small administration (i.e. local authorities) which are still reluctant or unable to conduct a purchase in a digital manner.

2.1 Introduction

Since 1 January 2005, all public entities that are subject to the public procurement code in France, such as administrations, local authorities, hospitals, and public institutions, have been required in accordance with Article 56 of the French law,¹ to accept electronic tenders from vendors. That date was fixed following the overhaul of the public procurement law published in September 2001; it was one of the 140 measures in the government's electronic administration program (ADELE)

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published in 2004.² The gradual virtualisation of public procurement, in which Article 56 represents one of the first stages, is therefore at the heart of the policy implemented in France by successive governments since the end of the 1990s to improve efficiency in public procurement. “Article 56,” which is part of the general policy for public services modernisation and administrative procedures simplification, is regularly presented as “the” solution to the problems encountered with regard to public procurement contracts. These problems are related to the complexity of managing public contracts, the unavailability of information on current contracts, and the high level of direct and indirect costs. In particular, e-procurement is supposed to make public procurement more efficient: lower costs, time savings, and improved productivity [GAR01, EME02, LAJ04, JUB05].

What does the public e-procurement involve? It entails implementing electronic means to process publish exchange and store information concerning public procurement without a paper medium. In concrete terms, it consists of publishing public calls for tenders (AAPC) on the Internet, sending out documents and specifications (consultation files for companies, binding tender forms, etc.) in digital form, receiving tenders electronically, and so on, with a view to ensuring greater efficiency in managing procedures for awarding public procurement contracts.

2.2 The Initial Survey in 2005

One year after the fateful deadline of 1 January 2005, although e-procurement was clearly being implemented, the results as yet have been timid, leading numerous observers to regret the excessive prudence, even conservatism, of both public sector entities awarding public procurement contracts and companies. If this hesitancy was not completely unexpected, the determining factors still needed to be defined. The prevalent tender approach in e-procurement, the top-down character of the model used to deploy this innovation, the use of technical intermediaries (“virtualisation platforms”) supposed to mask the IT complexity, all these factors have played a part in these phenomena.

Factors relating to the dynamics of the project may also have played a part. Does the “official” virtualisation, that of the technical platforms where vendors submit date- and time-stamped tenders and exchange secured by asymmetric cryptography, supplement “unofficial” virtualisation, that of e-mails exchanged between parties to the contract and deliverables sent in the form of computer office documents and printed by the customer? Is it destined to replace it in the same way as industrialisation replaced traditional craft industries? Or, on the contrary, has it ridden roughshod over work practices that were beginning to be put in place using the new media, at the risk of fewer gains than losses in terms of productivity and quality? Moreover, once the official tools have been put in place, will there be any room left for innovation and ongoing improvement, or will buyers and sellers find themselves confined to purchasing practices that are imposed to such an extent by IT tools that they can only develop in line with the development of their tools?

Furthermore, do they have no real control over such developments because they are dictated by private mediators aggregating numerous customers?

To assess in concrete terms the use of public e-procurement in practice, the Institut Télécom (formerly GET)³ carried out a survey in 2005 among public administrations in the context of the ProAdmin research project [PRO05]. Our objectives were to gain a better understanding of the e-procurement process, to assess the problems encountered by public buyers when using these systems and to determine to what extent the available tools satisfy their expectations, and so on.

From a methodological point of view our survey was based on an online questionnaire for public administrations. An electronic mail requesting the participation of “buyers” was sent to officials of procurement services, accounting officers, and financial controllers of a sample of 500 public administrations (ministries, public institutions, local authorities, etc.). After the initial electronic mailing at the beginning of October 2005, followed by reminders sent out at the beginning of December and in January 2006, 90 questionnaires were completed in an exploitable way. The overall response rate was satisfactory (18%) and the large proportion of respondents who asked to receive the results of the survey (73%) seems to demonstrate the interest that it aroused.

In this section of the chapter we attempt, using the results of this initial survey, to determine the impact of e-procurement on public administrations after 1 year’s experience with the new system. On the basis of this assessment, we then attempt to clarify the benefits of e-procurement for public sector entities, as well as their representations of the desired transformation of practices. Before addressing these points, we revisit the initial objectives of the virtualisation of procurement contracts, as initially expressed by the governmental instances.

2.2.1 The Virtualisation of Public Procurement Ab Initio: Numerous Opportunities and Guaranteed Gains

2.2.1.1 Political Proactivity Requires Exogenous Change

When the idea was first mooted within the framework of the electronic administration, in the mid-1990s, virtualisation was described as a *triple challenge*: to simplify the life of companies, to initiate them into electronic commerce, and at the same time to encourage the public institutions to modernise, organise, and increase their efficiency and make savings. From that point of view, virtualisation is a relatively easy way of promoting changes in procurement procedures, saving time, making public procurement more transparent and attractive again, and developing the European market. The views expressed at that time were proactive and very optimistic. For example, the report entitled “The State and Information Technologies: Towards an Administration with Plural Access” [LAS00, p. 129] considered that “*putting in place online tendering but above all making it possible for companies*

to consult files online and to submit completed tenders online should be considered as priority projects. This is an area where progress can be achieved rapidly while respecting the principle of equality among companies.”

Considered therefore as a “necessity,” virtualisation is one of the tools of the “administration’s modernisation.” Figures were quoted, for example, in terms of cost savings. Thus, several studies at that time agreed that the virtualisation of public procurement could generate real savings of between 5 and 10% a year in a sector that represents approximately 10% of French GDP.⁴

The political proactivity behind the virtualisation of public procurement – like the reasons underlying numerous projects of the French electronic administration of the 1990s [RAL05, BEA05] – explains the extremely centralised and global initial positioning of the project. It was launched exogenously to public entities and was included in the revision of the public procurement code published in 2001, in Article 56 which made it compulsory. One year later, it is possible, if not to draw up a full appraisal, to identify a trend: namely the low level of adoption of e-procurement by public administrations and companies.

2.2.1.2 Low Utilisation Rate

In accordance with Article 56, public buyers were legally required, with effect from 1 January 2005, to virtualise their procurement procedures, failing which the legal certainty of contracts concluded after that date could be called into question⁵ Without any effort to raise awareness or consensus formation a priori, either with regard to the proposed solution (the virtualisation obligation) or with regard to the problems encountered in public procurement, even less with regard to the causal chain of events linking the solution to the problems, the virtualisation management strategy was clearly proactive, but also and above all brutal. The resultant chain of events was then typical of the implementation of political decisions imposed on the administration. Faced with what is seen at the central level as resistance to change by buyers at the local level, the project management has given an increasingly structuring role to specialised central entities charged with implementing Article 56. The MINEFI⁶ and the ADAE⁷ thus put in place, at the beginning of 2005, a joint ministerial platform – www.marches-publics.gouv.fr – enabling them to publish information on current contracts and receive tenders from companies. The project management is thus largely exogenous to buyers. In particular, the existence of a centralised offering has reduced the use by ministries of e-procurement. For other administrations, the widespread use of platforms has transformed the project. What happened?

With the entry into applicability of Article 56, public buyers felt trapped by an additional legal constraint which simply amplified the complexity of their tasks. This lack of understanding encouraged the referents to adopt “ready-to-use” solutions (private platforms) and quickly resulted in a limited use of this new possibility and a very instrumental vision of e-procurement. Public buyers perceived virtualisation not as a fundamental factor destined to transform the future of the public procurement

process, but as a simple instrument for data and information exchange. This does not mean that e-procurement has a poor image or that it is rejected by buyers. According to our initial survey⁸, buyers see it as a source of simplicity (40% (B9)), efficiency (49% (B9)), transparency (45% (B9)), and traceability (62% (B9)); however, they also see it as a source of problems of confidentiality (65% (B9)) and security (56% (B9)). This image of e-procurement is not very different from the overall image of the Internet.

In fact, the Internet has a good image among the general public, which sees it as useful and versatile. Some 50% of the people interviewed in 2005 declared that it helps them to save time by simplifying and speeding up tasks.⁹ However, the majority of the people interviewed had fears regarding confidentiality and security.¹⁰ This tends to demonstrate that public e-procurement is not, for its main stakeholders, a project with an autonomous image

For the time being, the results of our initial survey showed a gap between the usefulness, perception, and acceptance of public e-procurement, regarding both its underlying principles and its expected benefits. These first results were mixed and the situation was disappointing.

2.2.2 E-Procurement In Situ: A Deceptive Situation

The results of the first survey reveal, via several key figures (as well as via the comments of the respondents in the open questions), the state of play regarding progress in implementing public e-procurement. Although at first sight the overall objectives have been attained, utilisation has not lived up to expectations. First, from a technological point of view, the system put in place remains incomplete and marked, among other things, by problems such as a lack of user-friendliness and confidence. Secondly, virtualisation has not led to changes in practices and has resulted simply in a change of medium.

2.2.2.1 An Apparent Success Which Conceals, However, a Problem of Underutilisation

One year after 1 January 2005, the results remain mixed. Overall the administrations have complied with their virtualisation obligations by putting in place the necessary means (96% of the administrations interviewed claim to have done so). Likewise the majority of public calls for tenders (AAPC) and tender files for consultation by companies (DCE) are published on the Internet. Details of current public contracts are available and listed on the websites of the administrations and/or on the sites of the e-procurement platforms. Companies can access them very easily by simply downloading the documents.

However, the number of tenders submitted electronically by companies and the level of experimentation with virtualisation by administrations for

managing and awarding public procurement contracts remains, 1 year after the initial deadline, extremely timid. E-procurement has not gone beyond the invitation to tender phase (publication of AAPC and DCE). Some 82% (B4) of respondents have tested e-procurement in this first phase, whereas only 32% (B4) have received a virtualised tender. Some 8% (B4) have experimented with the virtualised selection of tenders and only 4% (B4) of the administrations interviewed have concluded a contract based on a virtualised tender. By way of example, on www.marches-publics.gouv.fr, the platform which groups together all the contracts of the ministries (7,500 calls for tender launched online in 2005), only 5%¹¹ of the DCE downloaded resulted in an electronic tender being submitted electronically in 2005.¹² After 1 year, therefore, the investments and complexity of the systems put in place do not seem to be in phase with the actual use of such systems: if it involves almost exclusively putting public documents online, a simple documentary site management system would have sufficed instead of complex platforms managing authentication, date- and time-stamping, submitting tenders, and so on.

What is the cause of this discrepancy? The main limit to e-procurement according to its supporters is that companies are not playing the game. As Jean-Séverin Lair of the ADAE¹³ emphasises, “*We cannot impose e-procurement on companies.*” However, this bottleneck still needs to be explained. Very down-to-earth factors have contributed to holding back virtualisation. Thus, technical failings and a lack of confidence as regards confidentiality have resulted in a very low number of electronic replies to invitations to tender have been downloaded electronically. According to the survey, 67% (B13) of the problems encountered by public buyers are of a technical nature. The security issues and the fear of complications using electronic documents that need to be certified manually are strong limitations when it comes to submit a tender electronically [MEFI04, MEFI05].

2.2.2.2 The Incomplete Technological Development of the Virtualisation Platforms

The technological development of the “e-procurement platforms” has taken far longer than initially planned. The current situation in 2006 is the result of an unexpected slowness in developments and, on the other hand, a more complex functional target than planned. According to our survey, this slowness is the result of a series of fears among public buyers and companies. IT solutions are expensive for administrations, and naturally even more so for the e-procurement pioneers that have had to pay more than their share of platform development costs. Furthermore, the platforms are still deemed to be immature. They are seen as not being user-friendly and insufficiently compatible with the information systems of the parties involved. The case of a respondent operating in the construction and civil engineering sector is worth studying extensively. For these companies e-procurement procedures for public contracts have resulted in additional date-entering needs. The company’s table of cost evaluation is carried out using professional software,

which generates a “ready-to-print” document in a format that is not accepted by the main platforms put in place. To be able to tender online, the company therefore needed to re-enter manually the elements produced by its business software program in the input mask of the platform.

Although the platforms have been criticised by companies, public buyers are not entirely satisfied either, inasmuch as one respondent explained: *“E-procurement solutions are not really user-friendly and require a certain number of checks.”* These fears and problems are related in the majority of cases to a lack of computer skills and even in office automation processes. Hence, the lack of confidence in the new electronic systems is largely systemic. It is therefore hardly surprising that the majority of public buyers consider that e-procurement is a source of risks (60% (B24)).

2.2.2.3 E-Procurement Reduced to a Change of Medium

As they have not made many changes to their procedures, public buyers have not seen the gains that they imagined would result automatically from e-procurement in terms of cost savings, simplicity, transparency, and the like. On the other hand, they find themselves with new costs and new problems. According to our survey, the main benefit apparent at this stage is the improvement in procurement timescales (55% of the administrations interviewed declared that this was the case for the pre-tender phase, 67% for the call for tender phase, 53% for the submission of tenders, and 53% for subsequent relations) (B8). E-procurement has not stimulated competition (for 56% (B20) of the respondents) and the amounts of company tenders are more or less similar to those that existed before the entry into e-procurement. Only 25% (B11) of respondents considered the return on investment to be significant.

Therefore, for the time being, in any event, the simple change of medium is not sufficient to generate either material gains nor a return on investment. The situation will perhaps improve in the coming years, but that will no doubt depend on the implementation of a true overhaul of processes. For example, one respondent declared that the return on investment *“will tend to improve over time, but that will be more as a result of an overhaul of procurement processes than of the introduction of IT resources.”*

These observations confirm that it is naive to expect public procurement to improve simply by changing the medium used. The use of IT and electronic means for public procurement operations will never lead to improved efficiency without a policy of change and organisation. The causal chain of events is far more complex – and fragile – than the vision of e-procurement generating automatic gains. In an optimistic hypothesis, in order to make the e-procurement process more efficient, the introduction of electronic means requires organisational improvements. The introduction of ICT would then become a marker of good organisational processes and the change of medium would be an opportunity to improve procurement practices.

2.2.3 *Virtualisation of Public Procurement Ex Post: A Change of Medium, an Opportunity for Improvement?*

2.2.3.1 **The Future of E-Procurement: The Hopes and Confidence of the Stakeholders**

Disillusionment is setting in with the initial vision of an automatic improvement in public procurement as a simple result of a change of medium. However, this does not mean that virtualisation cannot have a positive impact on the efficiency and quality of public procurement, but in accordance with a more complex causal mechanism. The change in medium can in fact make it easier to call into question sedimentary practices, to modify roles, tasks, and decision-making criteria, among others. It is important not to ignore the symbolic force of changing not only working documents but also their changing nature. The semiotic force of the changeover from a paper format to digitised hypertexts is inevitably reflected in the organisation of work. Moreover, it is undoubtedly this symbolic force that explains the belief of public procurement stakeholders in the positive effects of virtualisation. Despite the problems encountered, the lack of confidence, and insufficient use made of e-procurement, the survey confirms that the majority of respondents have confidence in the future of e-procurement. Public buyers consider that, although the transformation process has not been successfully accomplished, e-procurement will eventually lead to greater efficiency. Thus, 89% of respondents (B16) consider that e-procurement will improve the procurement process. In the same way, 56% believe that e-procurement will contribute positively to good public procurement management practices, and 22% consider that it is indispensable (B3). However, these respondents associate far more than a simple change of medium with e-procurement. It is described as a “complete overhaul” of public procurement by 39% (B1) of respondents, a “slight reorganisation” by 31% (B1), and seen as “simple automation” by 30% (B1).

Therefore, the current difficulties have not eroded the capital of long-term confidence in e-procurement. This process is typical of the use of ICT, where we are used to waiting a long time after deployment for positive effects that can be quantified in terms of efficiency and quality.¹⁴ This fatalism is explicit in certain replies to the open questions in the questionnaire [PRO05], for example, the view that e-procurement is an “*inescapable expression of technological progress which facilitates access and a more modern management of public procurement*” or the view that “*the benefits are expected not over the short term but in the long term, when all companies including small structures take an interest in it.*”

What is the basis of this general optimism? In terms of impact, and among the multiple challenges of public procurement, the stakeholders gave priority to the potential effects of e-procurement on the complexity and fairness of public procurement. Public buyers believe it will ensure that procedures are simpler (68% (B17)) and fairer (72% (B17)). More precisely, 70% of public buyers consider that e-procurement is a source of simplicity for public entities, 73% for companies,

and 63% for public procurement auditors and paymasters (B18). In terms of organisation, with different logistics and a reorganisation of the process, public buyers consider that the benefits are mainly to be found in reduced timescales and the possibility to accomplish the related tasks more rapidly. Some 56% (B10) of public buyers see e-procurement as a means of saving time rather than money, which in no way detracts from its importance, because it helps to increase productivity by making it possible to improve preparations for public procurement contracts, launch others, rationalise expenses, implement management controls, and so on.

The reality is therefore disappointing in relation to the initial ambitions, but confidence remains high. The key success factor seems to lie in the capacity to transform the organisation of the process and make “technical” virtualisation contribute to the attainment of the “managerial” ambition. Is it possible to define more accurately representations and expectations at this specific level?

2.2.3.2 A New Focus for Public Procurement Management

For public procurement stakeholders, the initial difficulties of e-procurement lie in the teething troubles of the tools and the lack of sufficient incentives to motivate them to make the efforts to transform practices. Nevertheless, they do not seem to translate a more fundamental discrepancy between e-procurement as it is currently implemented and the routines of the stakeholders. This optimism gives rise to a new formulation of the advantage of e-procurement. Public buyers consider that it is necessary to grasp the opportunity of the change in medium to improve practices and processes. As one procurement manager emphasised in an answer to an open question in the questionnaire [PRO05], *“We have reached the limits of our traditional administrative way of thinking. E-procurement makes it possible to go beyond those limits by implementing new models with a new open-mindedness.”* Consequently, despite the technical, organisational, and legal problems, e-procurement is seen as a means to perceive e-procurement in a new light based on increasing efficiency accompanied by an overhaul of procedures.

Public buyers support the general injunction to “rationalise” public procurement and see virtualisation as an opportunity for accomplishing such a transformation. Can this representation be refined as a possible overhaul of processes to achieve greater efficiency? It is depicted as a change of culture, the current approach being marked by a legal conformist culture which needs to be replaced by an economic approach focused on innovation. One procurement manager declared in an answer to an open question in the questionnaire [PRO05] that e-procurement *“will in time make it possible to accelerate the validation at the different levels of the procedure, simplify administrative tasks, reorganise working methods, etc.”* In the same way, e-procurement will help to improve relations with audit, accounting, and payment services. Some 51% (B15) of respondents consider that eventually e-procurement will lead to a change in relations between procurement services and audit and payment services.

2.2.4 Public E-Procurement: Triggering a Dynamic of Improvement?

Our survey has helped us to fine-tune our understanding of the interest of public buyers and companies in e-procurement at its initial stages of development. The initial paradox concerned stakeholders who, although seeming to be convinced of the benefit of e-procurement, consider at the same time that a simple change of medium will never lead to an improvement in the process. Public buyers want a far-reaching transformation of the whole system, including a legal and organisational overhaul. Whereas 36% of respondents believe that technical improvements are above all necessary to make public procurement more efficient, 23% believe that organisational improvements are more important and 35% would give priority to legal improvements (B12). The only problem is that buyers do not know how to launch this overall project, moreover, according to our survey, they doubt whether this falls within the scope of their responsibilities. From this point of view, e-procurement seems to offer a perfect opportunity to overhaul completely existing practices and processes in place and initiate a dynamic of gradual improvement.¹⁵

Is this transformation model compatible with what we currently know about e-procurement? In other words, does the latter really facilitate the expected organisational change, or, on the contrary, does it contribute to making systems rigid and inflexible? The inescapable fact is that, to the date of the initial survey, the effects of e-procurement have been limited: the procurement function is switching to a new medium while adapting to a minimal extent to the newly available technological tools. This adaptation has not changed much as regards the fundamental causes of the problems facing buyers; in certain cases, it has served to expose their difficulties to a wider audience (e.g., by facilitating access to contract documents and exposing therefore, on occasions, their mediocrity). Far from initiating a virtuous cycle of transformation, e-procurement is seen in practice as a troublesome but short transition from a “paper-based” equilibrium to another “computer-based” medium, motivated by the need to comply with their legal obligations with regard to e-procurement. Once this objective has been attained, they can move on to other things; adoption remains limited.

2.3 The 2007 and 2008 Surveys

As the adoption of e-procurement did not attain its initial expectations, the governmental authorities appointed a group of experts to observe and measure e-procurement. This group of experts was also charged with the mission of disseminating good practices and gathering knowledge about the implementation of e-procurement. The procurement expert group regularly organised practitioners’ workshops and created an online library of documents in which were stored and made available presentations, discussions, and recommendations issued by the group.¹⁶ As part of the expert group activities, quantitative and qualitative surveys

were made regularly to assess different aspects of the ongoing e-procurement adoption and diffusion process. Two important surveys have been conducted in 2007 and in 2008 to evaluate the reality of e-procurement practices, to assess the perception of stakeholders, and to gather recommendations concerning the future evolution of e-procurement.

The first survey was made by the TNS-SOFRES survey organisation in July to October 2007 [MEFI07]. This survey was qualitative using 1h30 interview. It concerned 15 persons from the buy side (procurement managers in different public administrations) and 18 persons from the sell side (marketing managers in enterprises of different size and domain of activity). The main results are the following:

- There are different practices according to the size and nature of the procurement contract: for formalised contracts, usage of e-procurement is generalised and the public actors feel confident about it, but for adaptable contracts¹⁷ where the public entity has a large choice of alternatives, actors in public institutions fear juridical complications as many bidding contracts have been cancelled by the administrative jurisdiction due to procedural errors.
- Small public structures have big difficulties in handling procurement processes electronically, and it is often the managers' secretaries who are responsible for sourcing and procurement, and who are adequately trained for such a mission.
- The juridical risk is so important for public actors (fear of cancellation and/or juridical complications) that some institutions have introduced specific constraints on procurement processes which go beyond the initial constraints defined by the general law.
- Most sell-side actors (private enterprises) are rather critical: they are facing many different electronic platforms depending on the public institution with which they deal, and for small-sized companies, they consider that they did not get the sufficient level of training nor do they have the adequate human resources to deal with the complexity of answering electronically to a public call for tenders.
- Actors in public institutions continue, however, to believe in the potential of e-procurement to modernise the public sector and to enhance its efficiency.

The second survey was made in the April–May 2008 period for the *Direction des Journaux Officiels* [DJO08], a governmental organisation responsible for managing juridical information and who plays an important role in publishing data and information concerning e-procurement processes. This survey was quantitative with online questionnaires, and concerned 747 persons on the buy side, and 851 persons on the sell side. Some of the most significant results are the following:

- Actors (public and private) are aware of e-procurement potential and possibilities; there is a high level of satisfaction concerning the diffusion of general information about e-procurement.
- A significant portion (60–80%) of public actors use electronic means to publish calls for tenders and give the possibilities to bidding companies to respond electronically. However, only a small portion (22%) effectively handles offers electronically through an e-procurement platform.

- In a similar pattern, a large number of enterprises download documents concerning calls for tenders, however, only a small portion take the opportunity of using the e-procurement platform to respond.
- 30% of surveyed actors have fully virtualised calls for tender processes, the reasons invoked are related to the oncoming mandatory aspect of e-procurement, the perception of time and money gains, and the desire to participate in what is perceived as a modernisation process.
- 13% of surveyed actors have never used electronic means to handle procurement processes, the reasons invoked are related to the ongoing optional aspect of e-procurement, to the insufficient level of training and knowledge about the e-procurement tools and processes, and to the fear of juridical complications if these tools are not used adequately.

2.4 Conclusion

The first survey that we carried out reveals that 1 year after the legal obligation introduced with effect from 1 January 2005, the utilisation of e-procurement by the public sector remains limited. The administrations have clearly complied with their obligations by acquiring the necessary means; however, e-procurement is used only to a limited extent and has not really been grasped as an opportunity to reorganise the procurement processes. The volume of tenders submitted electronically by companies is almost negligible and e-procurement has not gone beyond the phase of consulting calls for tender online.

In addition, various technical, organisational, and legal problems still exist. The optimistic assumption of an improvement in practices as a result of a change of medium must give way to a more pragmatic vision. This revision supposes a modification of the project management, which to date has focused more on selection aids, making available technical solutions and a move towards accounting for “opening marketplaces” rather than towards uses and enhanced performance. The e-procurement managers must modify their actions to improve the project’s implementation at the operational level, using an organisational approach based on observing/modifying practices. That is, in any event, the view expressed by the majority of public procurement practitioners interviewed in year 2006.

The two surveys conducted in 2007 and in 2008 confirmed the main conclusions of our initial survey. Although e-procurement diffusion has progressed constantly, there is a visible digital and organisational divide. Small-size companies and local public authorities suffer from insufficient technical skills and resources. Juridical and organisational context for conducting online business is still insufficient for handling the sophisticated parts of the procurement process (submitting offers, analysing offers, and decision making). It is also insufficient for dealing with specific purchasing processes where the responsibility of the public actor is deeply engaged (MAPA category of calls for tenders), and where

the fear of juridical complication (or even cancellation) hinders the full electronic support of underlying process. The stated objectives of 100% of public procurement contracts online and at least 50% of contracts concluded electronically by 2010 seem to be far from the current concerns of practitioners.

How could improvements be made on the basis of the lessons learned from these surveys? To encourage the adoption of e-procurement, doesn't the solution lie in an approach based on reorganising the procurement process in a participative spirit? We have explored in previous research works the collaborative dimension of e-procurement [ASS06, ASS08], and certain official declarations point in that direction: the adoption of common principles for e-procurement platform user interfaces, the standardisation of data and information relating to purchase orders and invoices, the standardisation at the European level of corporate identification elements, cross-border recognition of electronic signatures, and so on. We are aware, however, that a lot still remains to be done in this area, notably as regards improving "platform" offerings: alert systems, monitoring functions, virtualised solutions for documents (company registration certificates, binding tender forms, qualifying bid documents, etc.).

Notes

¹ The virtualisation of public procurement is based on Article 56 of the Public Procurement Code and on its two implementing decrees; the decree of September 18th, 2001 specifying the procedure for electronic tendering and the decree of April 30th, 2002 stipulating the conditions applying to electronic exchanges.

² ADELE 2004–2007 government program "Action Plan of the Electronic Administration," Ministry for the Civil Service, Reform and Territorial Development, Junior Ministry charged with State Reform, launched on 9 February, 2004.

³ The Institut Télécom is a public administration under the supervision of the Ministry of the Economy, Finance and Industry, which is charged with organising higher education and research in ICT.

⁴ See [GAR01] for example. Several press articles even referred to savings of 15% thanks to public e-procurement virtualisation. See "Achatpublic.com passe les marchés publics en ligne", *Journal du net* (July 21, 2003), or "Les nouvelles technologies font baisser les coûts des achats publics," *Le Monde de l'économie* (May 14, 2002, p.14).

⁵ A competitor excluded from the contract could use the argument that it was impossible to consult the tender documents online or to tender online to claim that there was not a level playing field between competing vendors. Although the threat is theoretical at this stage – to the best of our knowledge no litigation has yet arisen on this point – the legalistic approach of the public administrations is such that they have all endeavoured to put in place a form of virtualisation, if not within the prescribed time, at least in the months following the deadline.

⁶ Ministry of the Economy, Finance and Industry.

⁷ Agency for the Development of the Electronic Administration.

⁸ For ease of reference regarding the results of the survey, the figures (Bxx) correspond to question number xx in the "buyer" questionnaire and figures (Snn) to question number nn in the "seller" questionnaire. Accordingly, by way of example, "51% (B15)" means that 51% of the respondents replied "yes" to question 15 of the "buyer" questionnaire and "52% (S7)" means that 52% of the respondents replied "yes" to question 7 of the "seller" questionnaire [PRO05].

- ⁹Ipsos/Club Internet survey (June 2005).
- ¹⁰TNS Sofres/Cap Gemini survey (August 2005).
- ¹¹46,452 invitations to tender files were downloaded from this platform with an average of more than seven consultation files downloaded per contract.
- ¹²"Marchés publics: l'Etat doit convaincre les entreprises," *Le Journal du Net*, 26 January 2006.
- ¹³*Idem*.
- ¹⁴One can consider that this observation is the intrafirm equivalent of the Solow paradox globally: "Computers can be found everywhere except in productivity statistics." Although the Solow paradox now seems to have been resolved through the acceleration of productivity growth since 1995, the underlying causal relations remain obscure.
- ¹⁵This belief is firmly rooted – although badly established – in the power of an exogenous crisis to transform practices and organisation, and views very similar to those expressed regarding the Year 2000 effect on information systems, or regarding the changeover to the euro on the transformation of companies' accounting and financial systems.
- ¹⁶Available online at <http://www.telecom.gouv.fr/rubriques-menu/entreprises-economie-numerique/dematerialisation-marches-publics/28.html>, retrieved July 12th, 2010.
- ¹⁷MAPA: *Marché à Procédure Adapté*, a procurement contract in which the public actor has a certain autonomy in defining the purchasing process.

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