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Innovation in e-procurement: the Italian experience
e-government series

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Foreword

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On behalf of the IBM Centre for The Business of Government, we are pleased to present this report,
'Innovation in e-procurement: The Italian Experience,' by Mita Marra. This publication is the first in
a new series of reports that the IBM Centre for The Business of Government will publish examining
public-sector innovation in Europe.

In Italy, the transformation of government procurement began in 2000 with the creation of Consip
(Public Information Services Agency). Consip, which is a public company owned by the Italian
Ministry of Economy and Finance, created a new information technology platform and new
operational procedures that dramatically transformed the government acquisition process in Italy.
New procurement processes at the national level included an electronic catalogue, online auctions,
and an electronic marketplace. Working as a public company, Consip was designed to minimise red
tape, recruit a highly educated workforce, and be more responsive to clients.

Marra's report describes the path taken by Consip and examines the features of Italy's public
procurement system. In highlighting both what has been already achieved and what is still needed
for future improvement, Marra finds that public agencies' use of new procurement procedures
appears to have achieved many of their intended results. Consip also had some unintended, positive
impacts. Interestingly and unexpectedly, the most dynamic regional and city governments, such as
Salerno, developed their own procurement support agency. That is, they created local versions of
Consip, with new portals, Web-based shopping malls, Web-based auctions, and other Web-based
marketing and procurement related services focused on their local needs.

Marra concludes her report with findings and recommendations for public managers, for Consip
itself, and for other countries currently transforming their public procurement system. We trust that
this report will be informative and helpful to those around the world seeking to improve the delivery
of public services and the business of government.

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Executive summary

Consip (Public Information Services Agency) stands at the heart of the Italian government procurement reform programme that was launched in 2000. A public company working for the Ministry of Economy and Finance, Consip has spread information technology (IT) services across public agencies and provided e-procurement solutions through:

- The electronic catalogue
- Online auctions
- The electronic marketplace.

The electronic catalogue permits the purchase of standard goods and services within the frame of national contracts, centrally negotiated by Consip. Public managers can access the e-catalogue on the Internet, click on the item of interest, and specify the needed quantity at the price fixed for national supplies. Online auctions are designed to address specific requests for specialised materials for large contracts. The electronic marketplace allows public agencies to choose products from a range of suppliers certified by Consip.

Public agencies' use of new procurement procedures appears to have achieved several intended programme results as well as a number of unintended, surprisingly positive effects – all of which make the Italian experience a case of innovation in government procurement. As expected, the binding of contracts for large nationally required supplies led to a decrease in the unitary cost for standard goods and services (Ministry of Economy and Finance, 2004). Purchasing procedures through IT services comply with public contract requirements of transparency, publicity, integrity, and broader competition both domestically and at the European level. In purchasing goods and services, public managers reported greater awareness of costs and service needs in their own agency, routinely benchmarking local vendors' contract conditions with those negotiated by Consip for national supplies. Public managers who used the IT platform reported a willingness to use e-procurement tools in the future.

Unexpectedly, the most dynamic regional and city governments have developed their own procurement support agency – that is, local versions of Consip – and new portals providing Web-based shopping malls, Web-based auctions, and other Web-based marketing and procurement-related services. Furthermore, Consip has established collaborations with the procurement institutions of 29 countries participating in the European Public Procurement Learning Lab – among them, Austria, Denmark, France, The Netherlands, and Finland. The Italian model has been recognised abroad and adopted by the European Union Phare programme for twinning e-procurement projects in Turkey and Cyprus. (The Phare programme is one of the three pre-accession instruments financed by the European Union to assist the applicant countries of Central and Eastern Europe in their preparations for joining the European Union.)

However, the reform of public procurement has faced several challenges. First, the new system of public procurement is built upon a business-oriented model, but it is problematic to transfer knowledge directly from the private to the public sector due to differences in the development and implementation of e-procurement across sectors. One difficulty is that multiple goals, rather than just profit maximisation, are the primary motivation for e-procurement in the public sector. Second, the lack of qualified personnel and a general resistance to change across public agencies act as barriers to procurement transformation.

In addition, the current procurement transformation has thus far co-existed with two very different approaches to reform, which are working in parallel and sometimes at cross-purposes. One approach focuses on tightening the controls on spending: More attention is paid to centralising acquisition processes to tap economies of scale. Consip acts as the broker between public agencies and private vendors through aggregating demand at the best price and quality conditions available on the market. This 'control' approach relies on supply-driven procurement processes to reduce fragmentation, waste, and hidden public spending at the local level.

By contrast, behind e-procurement one finds innovative methods of public production and provision of government services, which in turn point to key management strategies and capacities. E- procurement has a significant bearing on contracting for complex integrated services (such as facility management services, science and technology equipment), and public agencies have gained access to skilled staff with considerable productivity gains. From this perspective, procurement reform attends more to the qualifications and capacities of employees in promoting efforts to decentralise procurement decisions while infusing technology, changing local assessment practices, and developing networks and partnerships. Here e-procurement is a source of innovation that spurs behavioral change within organisations. Consip is called on to develop IT techniques that facilitate information sharing, knowledge creation, and diffusion. It provides assistance for managers to reflect on the results achieved and to engage in a cycle of continuous improvement through performance measurement.

The Italian experience is striking in that it copes with the inherent tensions underlying procurement transformation. While centralising contracts to contain public spending, Consip has learned to customise e-procurement tools to the specific needs of public agencies, providing consulting and support for bidding and contract negotiation, and increasingly coordinating the network of local and regional e-procurement initiatives. From a supply-side approach to e-procurement as designed and carried out between 2001 and 2003, Consip has turned out to be driven by demand, fashioning its assistance to public agencies around their particular needs and around problems that arise in the relationship between purchasing agencies and vendors.

As public agencies move increasingly toward arrangements for e-procurement, both at the state and local levels, that are developed and tailored in-house, this report offers specific guidance on e-procurement models. Public agencies need to take a long-term, strategic approach to managing eprocurement tools, calling for continuous capacity building and the upgrading of procurement personnel skills at the local level. E-procurement should be considered a managed relationship rather than just an information technology device replacing traditional procurement procedures. The use of performance measurement is an important ingredient for improving ownership and quality of e-procured services requested by public agencies.

Consip should tackle one of the major problems facing public agencies – that of finding reliable vendors so as to be able to focus on improving productivity. Instead of providing standardised assistance on a variety of e-procurement aspects to the largest number of public agencies, Consip should devote its assistance to sets of public agencies with similar needs across sectors. It can then focus on problems that come up in the course of defining contract specifications and deadlines and managing relationships with vendors. All this requires that Consip concentrate its efforts on one agency or a few with the same procurement dynamics, needs, and challenges. As a demand-driven approach is problem-driven, iterative, and results-oriented, it works best when it subjects both vendors and customers to a tough test of performance: If the product of a vendor does not meet competitive standards of cost, quality, and timely delivery, the customer (the government purchasing agency) will simply not accept the goods or will not renew the order. This impels Consip to strive, together with the purchasing agency, to strictly monitor performance for better quality and stronger reliability.

All countries currently transforming their procurement system are called on to overcome the human resource, organisational, institutional, regulatory, and policy constraints that act as barriers for effective procurement practices. The Italian experience suggests the need for a radical government- wide intervention for restructuring acquisition processes through strong political commitment, long-term vision, and strategic management capacities. Working as a public company, Consip was designed to avoid red tape, operating outside the administrative rules and regulations in ways that elicit higher worker dedication, include a combination of IT and project management skills, and are more client-sensitive and customised.

Yet, these reform-sustaining programs are difficult to design and successfully implement unless they are backed up by local initiatives. It has been widely recognised that simply applying a new set of rules to the people at the top will not affect the performance of an organisation at the bottom. On these grounds, the Italian case reveals that preoccupation with compliance to rules, centralisation, and public spending rationalisation went at the expense of procurement results at the agency level: Public managers viewed central, mandatory acquisition operations as keeping their personal conduct formally in line with the new rules, and the culture of public procurement tended to reinforce that view.

To spur a cultural change, it becomes essential to toss out the restrictive government rules that keep managers from using people effectively and motivate those at the lower levels who are immersed in the day-to-day details of procurement practices. Procurement employees are confronted with highly specific issues; they often find it extremely difficult to be heard at the top and empowered to turn their own information into useful knowledge for strategic procurement. The Italian experience shows the importance of enhancing frontline workers' initiative and performance through continuous capacity building and technical assistance for project management provided by the central government upon request. A centrally guided decentralised approach seems to be the answer – one that at the same time balances the need for better performance with strengthened administrative capacity at the local level.

Introduction

By the end of 1990s, the Italian government had launched a series of interrelated initiatives to reform the public sector. Specifically, the government took a dramatic step toward a more efficient and effective procurement system across the nation. Moving away from buying goods to acquiring complex services by assessing and aggregating needs, strategically managing contracts, and monitoring performance has taken centre stage within public sector reform policies aimed at containing and reducing public spending. Information technology (IT) procedures supporting procurement processes make it possible to tap efficiency gains and savings in public spending through lower transaction costs, faster ordering, and more standard acquisition operations.

In Italy, the transformation of government procurement began in 2000 with the model developed by Consip (Public Information Services Agency) for all public agencies across the country. A public company owned by the Ministry of Economy and Finance, Consip set up both the IT platform and the operational procedures to carry out acquisition processes at the national level. Negotiating the best price and quality conditions for nationally required supplies, the system aimed to tap economies of scale and avoid fragmentation, waste, corruption, and hidden public spending. Government agencies at all levels were required by law to adopt the Consip electronic catalog, with the advantage of minimising transaction costs for auctioning, and privately based negotiations, traditionally carried out to speed up procurement processes.

Since 2003, the situation has dramatically changed. Moving away from a mandatory model of a centrally operated electronic catalogue, public agencies now can freely choose both vendors and IT instruments that best suit their acquisition needs. The most dynamic regional and city governments have developed their own procurement support agency – that is, local versions of Consip – and new portals providing Web based shopping malls, Web based auctions, and other Web based marketing and procurement-related services. In this context, Consip offers state and local agencies consulting and tailored solutions for IT development and project management.

This shift from a centralised to a decentralised procurement system did not result from an intended massive devolution of procurement power to local and regional agencies, nor was it simply the outcome of technological spin-offs at the agency level. Technology is only one part of the current transformation of public procurement, which instead is more a mix of law, policy, technology, management choices, and some unintentional results that seemed inadvertent, or at least not attributable to strongly intentioned leadership. What makes the Italian case innovative lies in the way all actors involved in the reform – that is, policy makers, Consip executives and staff, public managers, and vendors – learned from the experience that the path to improved procurement is more complex than expected.

Launched just as an operation for containing public expenditure, the procurement transformation eventually involved reengineering attempts to insert IT across the public sector. But, more importantly, it triggered new acquisition dynamics calling for managers to assess agency needs, strategically plan acquisition processes, contract with private suppliers, and routinely monitor contract relationships to ensure high performance and value for money. Public procurement transformation has the potential to revolutionise agencies' work at all levels of government, with Consip enabling innovation and providing capacity building across public agencies throughout Italy.

The aim of this report is both to reconstruct the path taken by public procurement reform in Italy and to examine the features of the current public procurement system (see Appendix I for more details on study design and methodology). The report is divided into three parts. The first part focuses on how the new model of public procurement was designed and implemented between 2001 and 2003, and analyses the changes the system underwent to gradually adapt to the reality of public agencies across Italy. The second part traces the dynamics at play to further customise public procurement to the specific needs of public agencies. In highlighting both what has been already achieved and what is still needed for future improvement, the analysis reconstructs the role Consip has played and should play in the future to forge collaborative relations with public agencies. The third part includes findings and proposes a set of recommendations for public managers, for Consip, and for all countries currently transforming their public procurement system.

Consip: A case study of business transformation to e-procurement on demand
By Jonathan D. Breul

There are an increasing number of business transformation stories throughout the governments of Europe. One of the most impressive of these is presented in this report. The Consip case study described in these pages transformed the way Italian public agencies purchase goods and services via the creation of new, innovative e-procurement systems. Over a several year period, Italy moved to an on demand approach to procurement. Why did this transformation occur?

The answer starts with changes in the nature of the environment, and in the nature of all institutions – commercial, government, education, and healthcare. In every industry, the main criteria for success have become performance and responsiveness. In terms of performance, governments are being pushed like never before to measure and improve program performance. In terms of responsiveness, organisations like the Ministry of Economy and Finance (MEF) know they have to be much better at sensing and responding to both the public and other public agencies in order to respond to the particular needs of those groups. By creating Consip, MEF transformed the way Italy does business.

Throughout the world, these forces, coupled with new technical possibilities, are driving new and different choices about program design and operations – and their underlying computing infrastructures. These challenges require a deeper, more meaningful, and more difficult transformation than previous reform initiatives. This challenge can be characterised as on demand e-government.

On demand e-government is the horizontal integration of processes and infrastructure that enables day-to-day interaction across the entire enterprise and outward to external entities.

The characteristics of on demand e-government are:

- **Responsiveness.** Whatever the legislative, organisational, or operational change, governments are able to react quickly to meet present or potential needs.
- **Focus.** As processes are transformed and value chains, including suppliers, are optimised, governments are more able to see what functions should be done by themselves or by other institutions – public or private.
- **Variability.** Thanks to open, integrated infrastructures that foster collaboration and the creation of services to meet evolving needs, governments deliver the right service, at the right place and time, to the right degree.
- **Resilience.** Governments maintain their service levels no matter the impediment or threat. While technology has always supported governmental operations, in on demand it is the prime enabler of resilience.

No longer is it enough to streamline individual agency processes and just provide online citizen services. Only those governments, such as Italy, that integrate within the enterprise and across external boundaries – the heart of an on demand approach – will be able to respond with the speed, force, and coordination needed to tackle pressing public problems. It should be no surprise that as governments come to understand these challenges, they, like Italy, will upgrade and integrate IT systems and change the way they provide services to the public and to themselves. Government is clearly becoming more on demand. Consip is a trailblazer in this business transformation.

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From Supply-Side to Demand-Side E-Procurement

What Is Consip?

Any discussion of e-procurement initiatives has to begin with a brief description of Consip's mission, organisation, and statutory configuration. Consip was created in 1997 under the D'Alema government as a public company, 100 percent owned by the Italian central government, with the mission to design and manage IT within the Ministry of Economy and Finance (MEF). In 2000, under the Amato government, Consip's mission was thoroughly redefined and broadened to contribute to public sector modernisation not only through IT projects but also – and more importantly – through the spread of leadership, efficiency, and quality of public services in procurement.

In 2001, under the Berlusconi government, Consip's mission shifted to the rationalisation of public spending for goods and services. Enhancing innovation and efficiency in procurement processes across public agencies became the number one priority for Consip, with significant implications for the way the organisation worked. In pursuing such a high profile mission, Consip internalised knowledge of top ministries' acquisition processes and information systems. It then externalised, through outsourcing, the implementation of IT projects, and integrated IT skills with project management capacities and specialised consulting competencies to promote innovation in the public sector (Consip, 2002).

Being a public company does not mean that Consip sells its own services to public agencies. Rather the company operates outside public administrative rules and regulations. Its legal status allows for two key advantages: First, Consip avoids the red tape involved in all administrative relationships; second, it hires human resources without being subject to public recruitment rules. Thus, Consip enjoys a great deal of autonomy and flexibility in management. Furthermore, the commitment of human resources is for Consip to be totally geared toward highly qualified personnel needed for all stages of the procurement cycle. In 2002, 413 people worked for Consip, of whom 374 engaged in two different domains: 252 were employed in IT activities and services, and 122 were devoted to the rationalisation of public spending through e-procurement. The average age of Consip staff was around 37, with 68 percent having a graduate degree and 45 percent being women (Consip, 2002).

As shown in Figure 1, Consip organizes its work along three functional lines, with professionals assigned to separate divisions: (1) IT services, (2) project management for e-procurement, and (3) product assessment through extensive market surveys and technical evaluations. Thus, the formal organization appears consistent with packaging supply-driven assistance on IT services, project management solutions, and market intelligence for as many public agencies as possible. Yet, interactions across divisions are frequent.[1] Consip's top management reported firm commitment to, and support for, collaborations between IT personnel and line managers to tap the synergies

of different expertise in response to public agencies' needs. Particularly in the work for online auctions, technical skills in IT services and the knowledge of public contract law requirements are adapted to the specific cases at hand. Interviews demonstrate that workers in this organisation show high dedication to their jobs. Employees came to the jobs dedicated, the work environment rewarded them, and the circumstances of their work elicited strong commitment from them. As a top manager reported, "Each online auction completed injects some sort of adrenaline that makes our guys work productively together to give birth to yet another Consip kid!"

The Board of Directors of Consip includes the president, vice president, executive director, and two other board members—all of them appointed by the MEF. While the president chairs the board with steering prerogatives, the executive director is in charge of management. The Parliament is not involved in appointing any board members, and this may result in a crippling institutional system of checks and balances, exposing Consip to political pressures and lobbying by vested interests. The executive director retains most responsibilities and decision-making power, accounting for the great latitude and flexibility the company enjoys in pursuing its highly complex mission. The question is whether a more pluralistic decision-making system would better buffer the organisation from volatile political pressures.

Figure 1: Organisation of Consip
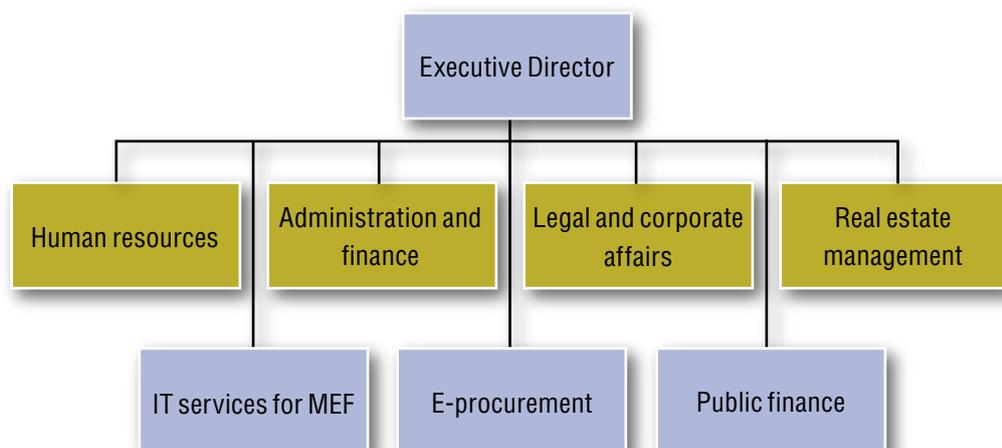
The Urge to Rationalise Public Spending as the Driver for Centralised Procurement

Consip's involvement in the transformation of government procurement began with substantive efforts to contain public expenditure by achieving value for money and to effectively deliver public services. With the 2000 budget law (Law n.488, 1999), the Italian government launched the Public Spending Rationalisation Programme (PSRP) aimed at reducing public spending for the acquisition of goods and services. The government set out to achieve a decrease in public spending by €3.7 million in 2003 and up to €7.9 million in 2006, stemming from a reduction in both unit prices and consumption. One key component of such an ambitious programme was the move toward e-procurement at both the national and local levels.

PSRP aimed to accrue savings in public expenditure through National Framework Contracts (NFCs). These were bundles of contracts for national supplies, which could be divided into geographical lots or segmented by technical features of products or services. These contracts were expected to lower the unit cost of goods and services through economies of scale and to simplify the procurement administrative process through paperless procedures. NFCs were to be operated through IT services to minimise transaction costs, shorten the procurement cycle time, and standardise procurement processes throughout Italy. In 2001, the MEF entrusted Consip with the negotiation of NFCs and the development of the e-procurement platform. As a result, Consip had to:

- Assess the aggregate demand of public agencies for goods and services at the national level
- Invite vendors to bid for national supplies
- Select the best contract conditions for the quantity of goods and services nationally required
- Set up the electronic platform to carry out procurement operations online.

As illustrated in Figure 2, to finalise NFCs, Consip interfaced both with public agencies to aggregate their procurement requests at the national level and with vendors to search for competitive bids on national supplies. Once the NFC was in force, Consip was not in charge of the contract relationship. For their own orders, purchasing agencies were stipulating single contracts with the vendors selected within NFCs, but they could not modify the terms of reference set by Consip nationwide. Thus, the central procurement model was clearly supply driven; Consip was channelling to government agencies at all levels a set of standardised solutions for e-procurement operations, with no further involvement at the agency level.

Figure 2: Brokering Function of Consip to finalise NFCs
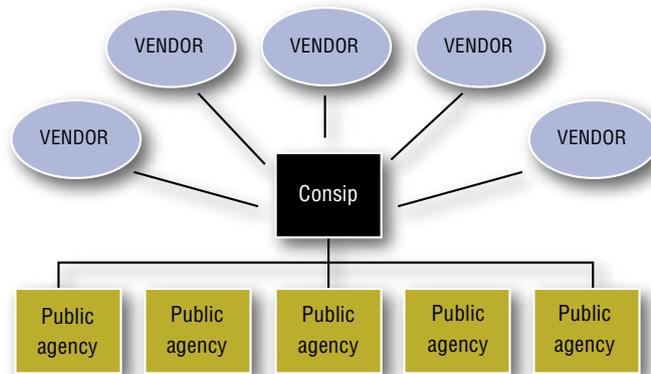
The e-procurement platform developed by Consip relied on a portal (www.acquistinretepa.it) that worked as a 'hub' for all e-procurement operations processed by local, regional, and state public agencies. Initially, the portal offered only the electronic catalogue, through which public agencies could purchase the goods and services subject to PRSP requirements. Not all expenses were eligible for NFCs. In 2000, PRSP distinguished two kinds of expenditure that were to be rationalised through NFCs, namely:

- Common expenditure – the expenditure on goods and services whose features are the same for most public agencies (such as stationery, telephone services, cars, and meal coupons)
- Specific expenditure – the expenditure on goods and services that are either sector specific (such as needles for local healthcare agencies and chemical laboratories for universities) or related to different levels of public administration (such as catering and facility management).

The 2000 law provided that NFCs would primarily concern common expenditure and only parts of specific expenditure. But the urge to further contain public spending soon led to a broadening of the mandatory application of NFCs not only to an increased number of specific categories of items, but also – and more importantly – to a growing set of public agencies operating at the local level.

In 2001, public agencies required to apply to NFCs included all central government agencies, local healthcare providers, and universities. In 2002, provinces, municipalities, mountainous territory protection agencies, and consortia of local public agencies also had to apply to NFCs. Though the latter were left with greater acquisition autonomy, the requirement was to benchmark procurement prices with those adopted within NFCs for comparable goods and services.

The true revolution occurred with the 2003 budget law, which made it mandatory for almost all public agencies at all levels of government to apply to NFCs to rationalise their purchasing processes. All purchasing entities were required to procure through the electronic catalogue whenever the goods and services they needed were listed on the catalogue. Furthermore, to minimise waste and hidden spending, contracts valued at more than €50,000 were to be negotiated through open invitations to bid so as to ensure publicity, transparency, integrity, and broader competition. Consip was called on to support purchasing agencies in defining terms of reference for bidding and qualifications for vendors' accreditation. Consistent with the supply-driven approach, Consip could even replace agencies whenever their administrative capacity was inadequate to carry out the whole procurement process according to the new standards.

Estimated and Actual Public Spending Savings through NFCs

Under this mandatory regime, Consip's activity boomed and its own reputation enjoyed a high profile among policy makers and top government officials.[2] Since the outset of the e-procurement programme in January 2000 until December 2003, 61 NFCs were stipulated, including 35 categories of goods and services usually acquired by public agencies, and seven agreements led to the subsequent setup of the electronic marketplace and online auctions as additional IT services.[3] Most important, NFCs encompassed telecommunication services, copy machines, printers, desktops, software, laptops, vehicles for rent, office stationery, lunch coupons, gas, and fuel.
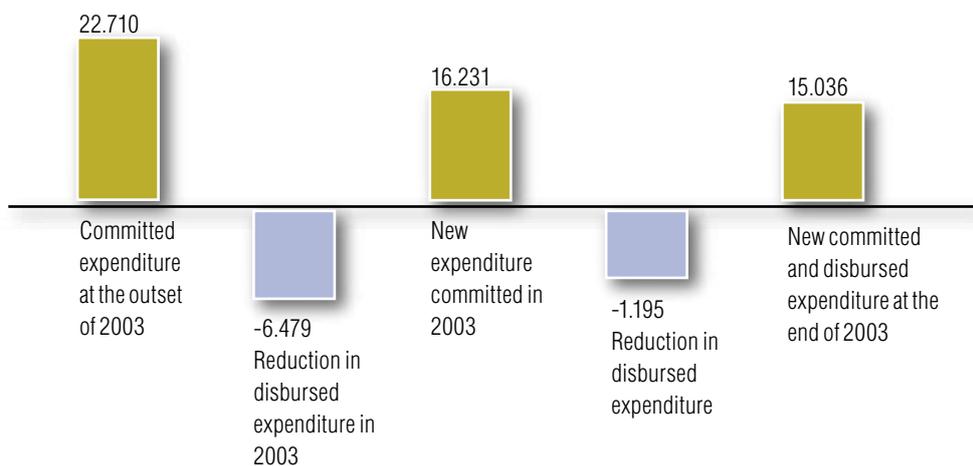
According to data provided by the MEF, these supplies accounted for a total amount of €15.036 million spent in 2003 – with average savings, as estimated by MEF, of 21 percent, that is €3.196 million (MEF, 2004). This figure, though, was not the result of a systematic monitoring effort conducted at the agency level, but an estimate built on the sampling of public agencies' committed and disbursed expenditure at the outset of 2003. Within the yearly ceilings PRSP had set for procurement expenses, as illustrated in Figure 3, both the committed and disbursed expenditure were expected to decrease at the aggregate level.

The reduction in purchasing spending was to stem from direct savings through NFCs and indirect savings from the so-called 'benchmark effect.' In other words, by comparing quality and price autonomously negotiated with those fixed in NFCs, public agencies were expected to improve their search for competitive sourcing and thus accrue savings over time. In particular, Consip estimated that through benchmarking NFCs' quality and price parameters on a regular basis, public agencies would save up to 81 percent for mobile phone services, 68 percent for landline phone services, 35 percent for laptops, 25 percent for desktops, 30 percent for printers, and 32 percent for copy machines. Furthermore, additional savings from NFCs would be generated through (1) simplification and standardization of procurement processes, (2) reduction in procurement cycle time, (3) minimisation of material errors in hard-copy documents, and

(4) abatement of costs for legal dispute resolution. It should be emphasised that the expected savings in public spending concerned only the unitary costs of goods and services and not the overall public expenditure. Public agencies could increase their spending despite Consip's efforts to decrease unitary prices of goods and services purchased by public agencies.

In fact, the audit of the Ministry of Economy, Justice, and Defence conducted by the Court of Audit for FY 2000, FY 2001, and FY 2002 did not back up the expected decreasing trend, mostly because of the difficulty in monitoring public agencies' expenditure at the disaggregated level. As purchasing departments and agencies at both the state and local levels did not set up a routine information-gathering system on acquisition processes, there were no data available in time series to compare the level of expenditure before and after the introduction of NFCs. Another difficulty concerned the change in the composition of budget lines and items, which made it impossible to track savings for the same categories of goods and services across different years. For instance, the Justice Department for Youth reported a generalised increase in 2002 spending because its budget line was including costs for renting vehicles that previously were not considered.[4] Currently, central departments are moving toward systematic monitoring and reporting on procurement, so reliable information is expected to be produced in a relatively short time.

Figure 3: Estimated committed and disbursed public spending savings in 2003 (in millions of euros)

22.710 — Committed expenditure at the outset of 2003

−6.479 Reduction in disbursed expenditure in 2003

16.231 — New expenditure committed in 2003

−1.195 Reduction in disbursed expenditure

15.036 — New committed and disbursed expenditure at the end of 2003

In 2003, as Figure 4 indicates, the degree to which public agencies applied to NFCs showed average coverage by 90 percent, calculated as the ratio between the number of applications to NFCs and the number of potential ordering entities (40,911 applications received versus 45,609 potential ordering entities). The major sectors participating in NFCs were ministries at the state level, a good chunk of the healthcare system both at the central and local levels, universities, and local government agencies.

In line with the mandatory compliance to NFCs, Figure 5 on page 13 shows the growing number of applications reaching a critical mass during the last three months of 2003. As designed by the reform, the whole public sector was progressively moving toward a centralised system of government procurement. Was this a success? Indeed, the figures reported in Figure 5 illustrate only one side of the story!

Complaints by vendors

The mandatory compliance with Consip's schemes caused much contention both within public administration and among private vendors. Disgruntled local dealers who had handled previous public agencies' purchases reinforced the scepticism of purchasing departments. Vendors decried the potential risk for excessive centralisation of acquisition processes, too stringent bidding procedures, and lack of competition, particularly for small and medium enterprises (SMEs) distributed throughout Italy. In their eyes, this was a case of 'unfair competition.' Allegations of market concentration as well as SMEs being crowded out mounted among small businesses, business organisations, and some sectors of public administration particularly resistant to giving up their traditional discretionary power.

Regardless of the truth of these complaints, vendors reported a great deal of uncertainty accompanying this mandatory phase. A representative from one of the major small-business organisations (namely, distributors of stationery items) reported that in the first invitation to bid for basic school stationery supplies, the different categories of needed items were not thoroughly specified, with the result of shrinking the overall volume of sales by 30 percent.[5] Furthermore, suppliers were not adequately informed of the requirements to participate in NFCs. Nor did small firms come to group together (in temporary enterprise aggregations) to meet the national demand for goods and services requested throughout Italy. Only large companies forwarded their bids in response to Consip's solicitations for national supplies, with the result of actually limiting competition. Among those firms winning contracts nationwide, those interviewed reported to be very much in favour of the new system in place.[6]

Reactions from public agencies

Overall, public agencies showed a rather passive acceptance of the NFC conditions, if not reluctance to abide by the mandatory procurement procedures. Public agencies were distinctly unenthusiastic about switching some of their purchases from traditional local suppliers to a few large manufacturers or distributors. Purchasing units lamented the lack of flexibility for basic standard goods and the inability to satisfy demands for highly complex services (such as space management for local public agencies and curriculum materials for schools).

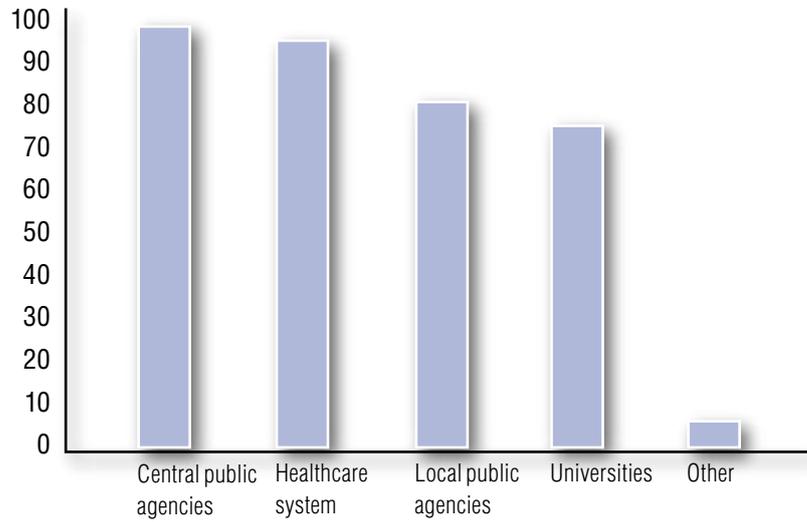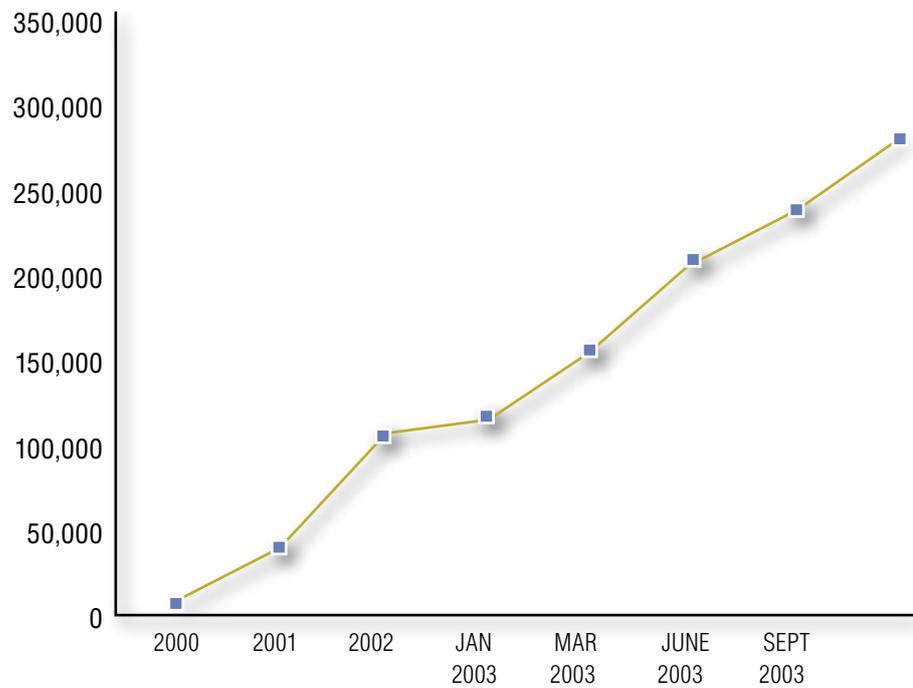Figure 4: Percentage of coverage of NFCs by sector

Figure 5: Trends in NFCs' order since 2000 (in euros)

Specifically, government agencies had three somewhat different reactions. Some public employees, unfamiliar with the new procurement provisions and fearing personal responsibility for misconduct in public contract procedures, simply avoided purchasing altogether. The complexity, uncertainty, and risk of large procurement projects led public managers not to even consider e-procurement as a possibility to improve their acquisition processes, as it calls for sustained and continuous capacity building at the agency level. In response, Consip disseminated best practices in e-procurement development and management and initiated e-learning initiatives aimed at informing and training managers on the PRSP requirements for rationalizing public spending throughout Italy.

Some others did not apply to NFCs because their particular requests were not available on the electronic catalogue or were not available in the volume and regularity requested. For instance, this was the case for schools, research centres, healthcare agencies, and the Department for Judiciary Personnel. Because specific curriculum materials and chemical, medical, and surgery products were not included in NFCs' supplies, and stationery items were not provided on a continual basis, purchasing units asked for derogatory authorizations to buy elsewhere. In these cases, the problem was not the lack of administrative capacity to take on the new procurement procedures. Rather, the problem lay in those specific aspects of central public procurement that were not flexible enough to address public agencies' needs. This required a reengineering effort to better tailor the new procurement system to the reality of public agencies across the nation. To address this issue, Consip began to develop online auctions and the electronic marketplace to offer purchasing agencies a broader range of products and a wider pool of vendors to choose from.

Most agencies, recognising the real cost effectiveness of NFCs for standard supplies, ended up spending even more. For instance, if the needed desktop was budgeted for €1,000, and priced for €500 in NFCs, the agency would then buy two computers, consuming the entire available budget with no actual savings in spending. In these instances, the problem was clearly a cultural one. Public agencies tend not to maximise their profit as private organisations do, and procurement is not considered a key function for the effective delivery of public services. In other words, purchasing agencies were not ready to adequately carry out the whole procurement cycle. As shown in Figure 6, this involves not only the bidding and contract negotiation but, more importantly, the assessment of the agency's needs, budgeting of the procurement operations, management of contracts, evaluation of product quality, and measurement of performance.

Undoubtedly, bureaucratic inertia, inefficient practices, unqualified personnel, and rent seeking still hinder change and performance across the public sector. In such circumstances, what was needed was not only a capacity-building effort to help the new system get started, but a thorough change in the way public organisations set out their own procurement function, manage their procurement personnel, and define and measure their own performance. Consip assistance, instead, was limited to the centrally driven negotiation of large contracts and the management of the bidding process. Those phases that preceded and followed the procurement operation strictu sensu were not part of Consip's mission (see Figure 6).
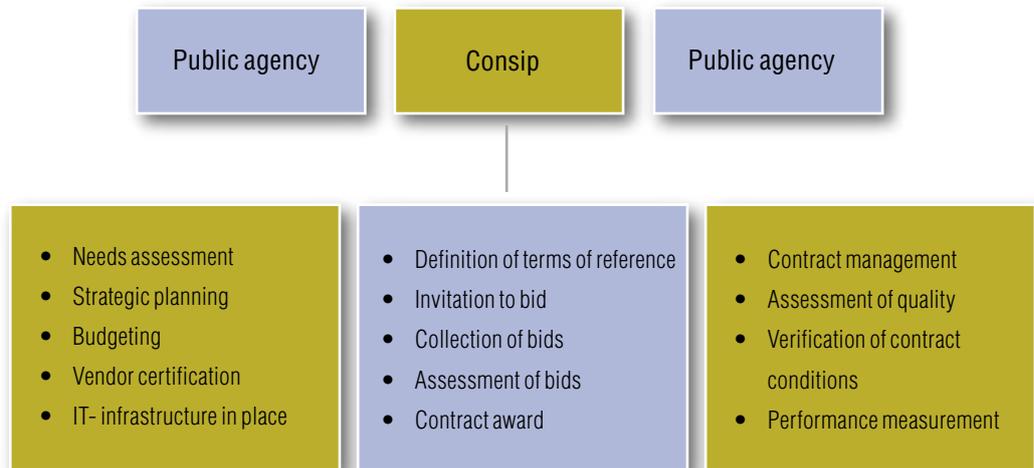
The problem of the contracting process

The major problem public agencies encountered in the implementation of the new procurement system lay in the contracting procedure. Consip was not expected to support the purchasing agency in contract implementation and management. This meant that there was no mechanism to share and contain the risk for vendors' under performance, delivery delays, and fraud. If an item proved defective, there was no information and monitoring system that could signal Consip that the firm was contractually responsible.

Public agencies were left alone to manage the contract relationship with suppliers whom they had not selected and with whom there was no fiduciary relationship building upon previous dealings. If the agencies purchasing the products did not like their price or quality, they could not modify the contract conditions, nor could they just switch to another supplier. Since NFCs were mandatory, public agencies had no choice but to purchase those goods and services that Consip had included within NFCs. Such 'disenfranchised' agencies did not even contest and apply the penalty clauses included within contracts when cases of under performance, fraud, or delivery delays occurred in practice. What was missing was some sort of arrangement reinforcing the pressure on both the firms and the agencies to deliver a good product.

As previously illustrated in Figure 2 (page 9), the architecture of centralised public procurement involved three distinct groups of actors – Consip, public agencies, and vendors – who were expected to work together. In such a system, the support agency for e-procurement operations (that is, Consip itself) and the purchasing function were housed in different agencies. Purchasing units were required to buy from those vendors winning the large supplies negotiated at the national level. This meant that Consip had somehow to prove to other entities – namely, purchasing agencies across the nation – that buying from those selected vendors was no more costly or burdensome than buying according to the agencies' standard procedures.

Figure 6: Phases of the procurement cycle

Public agency	Consip	Public agency

• Needs assessment • Strategic planning • Budgeting • Vendor certification • IT- infrastructure in place	• Definition of terms of reference • Invitation to bid • Collection of bids • Assessment of bids • Contract award	• Contract management • Assessment of quality • Verification of contract conditions • Performance measurement

The lack of cooperation by public agencies signalled that this mandatory supply-driven approach to public procurement was not meeting requests from individual groups of agencies or adapting to their particular circumstances. Although the problems afflicting public agencies tended to be generally characterised as lack of qualified personnel, limited technical and managerial capacity, and difficulties in monitoring contracts, the needs of purchasing agencies differed markedly from one sector or subsector to another. Assistance from Consip was not tailored to the conditions under which most public agencies operated contracts, where the IT equipment was less sophisticated.

The question, though, remains as to what extent Consip had to step into the contract-based relationships linking public agencies and vendors. Such relationships were left with the parties involved, who had to learn how to properly buy and manage commercial and commercial-like equipment, software, and services. However, there is a tendency, commonly shared across public agencies, to focus only on the bidding and contract negotiation, where specific rules and procedures need to be followed. Intangible resource investments, such as coordination and communication, are overlooked. In this respect, Consip should reflect on its own original philosophy, searching for concrete ways to offer its experience and competence both on the business side of the operation and on the technical assessment and implementation of contracts side.

The shift to decentralisation

Under the pressure of lobbying from small firms and the reluctant purchasing agencies, the government lifted the mandatory compliance set for all public agencies, with the exception of ministries at the state level. In August 2003, the bulk of the public sector was set free to autonomously negotiate acquisition contracts, provided that contract conditions and prices were more favourable than those applied in NFCs. Likewise, local governments were not required to routinely benchmark price conditions vis-a-vis those nationally agreed upon, but only needed to take into account NFCs' quality and price parameters. Also in 2003, mandatory invitations to bid for contracts worth €50,000 were suspended, while NFCs, now optional, were requested only for nationally relevant supplies of goods and services. Public agencies could then either apply to NFCs or autonomously negotiate acquisition contracts within the price cap set by NFCs. The 2004 decree provided that NFCs set price and quality parameters that purchasing agencies need to refer to before authorising new expenditure.

The lifting of mandatory compliance to NFCs was received with mixed feelings. While local agencies welcomed their renewed freedom in procurement processes and ability to share it with small firms, Consip found itself in need of thoroughly rethinking its own strategy through a renewed legislative definition of its official mandate.[7] Under the pressure of the limelight, Consip began to change the whole approach to e-procurement, addressing the demands emerging from a single public agency or a set of agencies, and involving business organisations in the negotiation of NFCs. Consip began to look into the workings of particular sectors, departments, and organizations (such as the Ministry of Education, Universities, and Scientific Research [MEUSR]) in need of direct support both to set up contracts and to follow up on them routinely to check upon the quality and delivery time of supplies. Pressured by the shifting regulatory provisions and the swinging political support of its sole shareholder – the Ministry of Economy and Finance – the company coped with the difficult task of transforming Italian public procurement, interpreting its own role as one of providing support to public agencies through increasingly tailored consulting and assistance.

A number of initiatives aimed at acquiring a more in-depth knowledge of the different phases of the procurement cycle across public sectors. For instance, in 2003, the MEF-sponsored project for demand management asked Consip to set standards for consumption of landline telecommunication services, gas for heating, and facility management within the Ministry of Economy and Finance. For the MEUSR, Consip initiated a collaborative effort to define spending indicators for intermediary curriculum materials for schools. With the Council of State, the analysis of Administrative Courts' consumption was launched throughout Italy. Among other initiatives, there were two studies: (1) on logistics services across the public sector, aimed at identifying operational flow charts, information dynamics, and modalities of payment; and (2) on the payment cycle, intended to streamline internal remuneration processes. Regarding the contract management and monitoring phases of public procurement, Consip, in collaboration with Italian National Statistics Institute, promoted an effort to routinely gather data on pricing and consumption dynamics of products typically acquired by public agencies. In 2003, data were collected on 12 standard categories of goods and services, such as paper, lunch coupons, printers, fax machines, and copy machines, across 500 public agencies throughout Italy.

Also at the policy and regulatory level, the steps undertaken to change government acquisition processes, as summarised in Table 1, witnessed the gradual customisation of e-procurement procedures, drifting away from the initial, perhaps excessively top-down, mandatory framework toward more flexible and voluntary solutions.

Such solutions would probably take longer to spread uniformly across the country, but they will adjust to specific needs and allow for greater vendor choice. In this context, Consip is called on to play a key role in further enhancing procurement innovation at the agency level by integrating its brokering function with substantive involvement in procurement management at agencies' side. Indeed, if one took a glance at what is happening at the agency and local levels, the picture would be very differentiated. Yet, one would be surprised to discover that numerous e-government and e-procurement initiatives have mushroomed throughout Italy, changing government efforts to provide information and services to citizens, businesses, government employees, other governmental units, and non-profit organisations, as follows next.

Evolution of regulations for procurement reform in Italy

| Legislative steps	Content of legislation
2000 Budget Law Law no. 488, 1999	Programme for Rationalisation of Public Spending (PSRP). Negotiation of National Framework Contracts (NFCs). Development of e-procurement platform.
2001 Budget Law Law no. 388, 2000	Ministry of Economy and Finance in charge of developing and managing national framework contracts for government procurement. Consip assigned to operate the PSRP.
2002 Budget Law Law no. 448, 2001	Establish the price cap for comparable goods and services across all autonomous acquisition processes that are not conducted within national framework contracts.
Presidential Decree no. 101, 2002	Introduction of new IT acquisition procedures through online auctions and the electronic marketplace.
2003 Budget Law Law no. 289, 2002	Mandatory for all public agencies to apply to Consip's negotiated NFCs through the electronic catalogue. Strengthened transparency of acquisition procedures. Consip can also negotiate contracts on behalf of specific public agencies or carry out tenders for public contracts.
Law no. 212, 2003	Lift the obligation for all public agencies to apply to Consip's NFCs, with the sole exception of central ministries.
Decree no. 269, 2003 converted into Law no. 326, 2003	Abrogation of art. 24 of 2003 budget law providing open or restricted tenders for contracts worth more than €50,000.
2004 Budget Law Law no. 350, 2003	All public agencies may or may not apply to NFCs
Presidential Decree no. 168, 2004	Public agencies may recur to NFCs made available by Consip. In any case, purchasing units need to refer to NFCs' price and quality parameters as benchmarks for all acquisition processes.

The spillover of Consip experience at the local and international levels

Most regions have moved beyond the static information-bulleting type Web site to offer a wide range of interactive services (Osimo, 2003, 2004; Regione Emilia Romagna, 2004). A majority of local governments have established their Web presence and are on their way to providing interactive service delivery capabilities. As shown in Figure 7, participation in public invitations for bids in a number of Italian regions shows specifically that e-procurement operations are increasingly spreading through IT services among both public agencies and vendors.

Surprisingly, within a generalised context in which most public agencies still need support and specific assistance to manage and monitor contracts, one finds that most dynamic regional and city governments have developed their own procurement support agency – that is, local versions of Consip – and new portals – either attached to the agency or independent, as shown in Figure 8 – providing Web-based shopping malls, Web-based auctions, and other Web-based marketing and procurement-related services (see, Cesari, 2003 on Intercent Project by Emilia Romagna Region in the North of Italy; see also the case of the province of Salerno within Campania Region in the South of Italy, in Appendix II). There are at least 17 e-procurement initiatives at the municipal, provincial, regional, and state levels[8] that were publicly recognised and awarded by the Department of Public Function through the well-known programme '100 Projects at the Service of Citizens' (Marra, 2003).

How to explain such developments? Evidently, the experience of Consip, its in-depth knowledge of procurement processes, and the IT expertise Consip has infused by operating the central system did not fade away with the decentralisation process!

Figure 7: Percentage of regions that had online participation in public invitations for bids
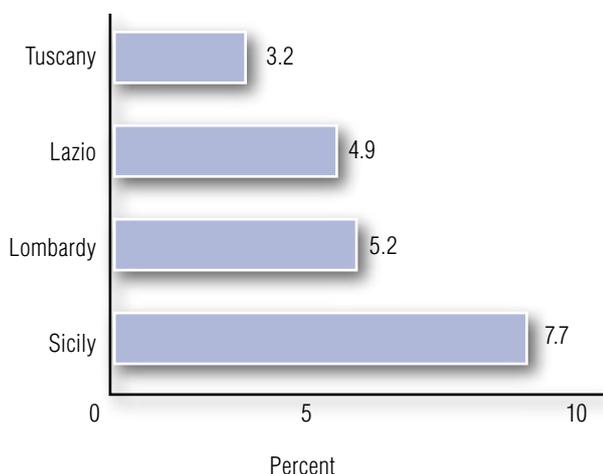
Free to organise and manage their own acquisition processes, the best-performing agencies have capitalised on the IT know-how they were forced to acquire under the mandatory central procurement regime. And this was not lost as soon as they were set free to choose both the acquisition modes and the vendors that best suited their own needs. This unexpected development raises implications for Consip – that it should engage in an effort to nurture and coordinate the network of e-procurement initiatives throughout Italy on a continuous basis.

Internationally, the Consip model raised great interest within and outside the European Union (particularly Austria, France, Cyprus, Poland, Jordan, and Turkey). Building upon the Italian experience, France set out to create a support agency for procurement modelled on Consip for rationalising public spending for goods and services within the Ministry of Economy, Finance, and Industry.

At the European level, the Italian e-procurement architecture was indicated as the model to follow by the EU Phare programme for the reform of public procurement in both Turkey and Cyprus. Within the initiative ' EU Public Procurement Learning Lab,' including 29 institutions of public procurement belonging to European Union (EU) member states, EU member candidates, and Norway, the trend toward a more centralised procurement system has increasingly spread around. Technology confronts public institutions with new challenges, and the Consip model has been a pioneer in recognising and facing the challenges brought about by the urge to modernise procurement systems across Europe.

Lastly, the Italian e-procurement architecture was indicated as the model to follow by the EU Phare programme for the reform of public procurement in both Turkey and Cyprus (MEF, 2004; Consip, 2004).

Figure 8: The Independent Portal Model currently spreading in Italy
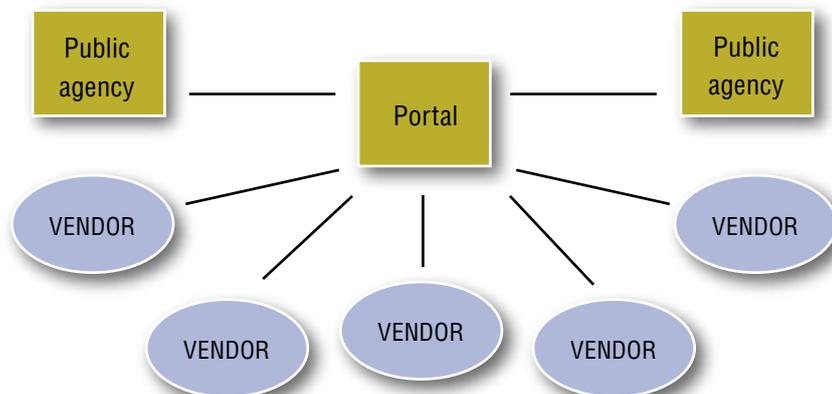
Toward enhanced customisation of public procurement

The demand-driven style of Italian public procurement is evolving from at least four dynamics at play: (1) the adoption of IT services across agencies at all levels of government; (2) the adaptation of online procedures to both domestic and European public contract laws; (3) the administrative capacity-building process to manage contracts, and (4) the opening up to competition and the levelling of the playing field for both small and large firms coming to offer their products online. This part traces these dynamics, highlighting what already has been achieved and what is still in need of future improvement.

Adopting IT services: The issues of compatibility and complexity

Over the past four years, Consip has sought to customise IT instruments for procurement processes through the following tools:

- Web links
- The electronic catalogue
- Online auctions
- The electronic marketplace.

The degrees of compatibility and complexity of such e-procurement instruments have considerably shaped relationships between Consip and public agencies. Compatibility is one main determinant of adoption.[9] Complexity, on the other hand, creates barriers to understanding and using technology.

In the first two years of PSRP implementation, Consip advertised NFCs through Web-based links and the electronic catalogue. Web-based links were in use for those NFCs that were operated not through the electronic catalogue but through traditional procurement procedures. Web-based links aimed, therefore, to inform purchasing agencies of the supplies available at the national level. As NFCs increased in number and in their coverage of categories of goods and services, the electronic catalogue became the preferred method. It was used to make Consip's latest agreements for national supplies readily available across purchasing agencies.

The electronic catalogue involved little coordination and transition work, with no need to customise the tool to specific needs. It was quite compatible with public agencies' traditional procurement arrangements and easily adoptable. Public agencies could access the catalogue on the Internet, click on the item of interest, and specify its needed quantity at the price fixed in NFCs as negotiated by Consip. This explains why lawmakers required its mandatory adoption across public agencies at all levels.

The electronic catalogue, of course, was less and less compatible with increasingly sophisticated demands for integrated services and high-tech equipment, such as facility management, healthcare diagnostic tools, and supplies for scientific research. In such circumstances, the instrument no longer lent itself for flexible usage, tailored to contextual conditions. For instance, schools could effectively purchase basic office stationery through the electronic catalogue, but they could not find specific stationery items for teaching purposes. When specific needs were predominant, the public agency (for instance, schools, hospitals, and research centres) simply did not use the electronic catalogue for procurement.[10]

To customise its support, Consip developed both online auctions and the electronic marketplace. Online auctions were designed to address specific requests for specialised materials.[11] They are, indeed, mandatory for conspicuous contracts exceeding the European Union threshold (€160,000 for central agencies and €250,000 for all other public agencies), and can be executed on the spot. Consip supported two auctioning models – the reverse auction, awarding the contract at the lowest price with immediately displayed bids, and the multi-parametric auction or weighted-score event, awarding the contract at the best value, which incorporated aspects other than price into the equation. For example, if an agency was conducting an auction seeking a provider for a provision of copy machine services, the variables that could be included in a multi-parametric auction could include price, toner and supplies, customer support, service terms, warranty, replacement parts, and finance terms. Under a reverse auction, however, the only variable that vendors would be competing on, assuming they could all meet the needed product and service specifications, would be price. The electronic platform developed by Consip supported both the procedures for successive rounds of bids with descending prices and the auction base with a single bidding process.

For online auctions, the degree of complexity characterizing relationships between public agencies and vendors grows with the level of customisation and the size of contracts.[12] The more complex the relationship, the greater the challenge public agencies face in the specification, assessment, and management of contract terms.[13] The degree of compatibility is linked with the agency's capacity to govern the bidding and the dynamic pricing process. In these circumstances, Consip offers technical assistance for setting up online auctions, specifying, for instance, all those requirements that vendors need to fulfil for participating in the auction. Consip can also set up the auction and conduct the procedure on behalf of the agency itself.

The electronic marketplace allows public agencies to choose products from a range of certified suppliers. Technically, it is a virtual place where demand and supply meet for all purchases below the EU threshold that are suitable for those categories of goods bought in small quantities with certain regularity. The electronic marketplace is a selective procedure, which can be operated only by 'enabled' users. While vendors need to be certified by Consip, public agencies need to receive their log-in and password and sign orders digitally. Once they are signed on, purchasing agencies can then directly order products using e-catalogues or putting forward a request for quotations (RFQ).

The electronic marketplace introduces market mechanisms within the procurement process, offering a significant degree of freedom to public agencies. In fact, the RFQ gives purchasing agencies the possibility of renegotiating prices and contract conditions for those items included within the electronic catalogue. A mature electronic marketplace with a pool of vendors gives agencies options from which to choose and the necessary information for making a purchasing decision. Potentially, this procedure shows a great deal of compatibility with public agencies able to negotiate and manage relations with vendors electronically. Yet the major challenges associated with this instrument are not only technology driven. Rather, they concern the administrative capacity to routinely survey Web-based vendors in search of competitive bids. But, most importantly, the question is the comparative advantage of Web-based supplies versus those of local vendors, considering that transportation costs and delivery time may raise serious efficiency issues.

Figure 9: Degrees of compatibility and complexity of IT Services for e-procurement

	High	Low
High	Marketplace	Online auction
Low	Web Links	Electronic catalogue

In all four IT services for e-procurement (that is, Web links, the electronic catalogue, online auctions, and the electronic marketplace), the degree of complexity and compatibility are related to the nature of goods and services to be procured, the administrative capacity of the agency to carry out auctions and forward RFQs, and the type of coordination and support Consip can offer. As schematically shown in Figure 9 on page 24, the electronic catalogue is a rather user-friendly tool suitable for common standard expenditures, thus quite compatible with routine-based acquisitions of fungible commodities. Despite its low complexity, the electronic catalogue ensures high compatibility for standard needs only. For all specialised requests, the instrument shows low compatibility.

By contrast, online auctions are the most complex and least compatible services, requiring administrative capacity and technical expertise to specify the terms of the contracts, govern the bidding process, and monitor contracts on a regular basis through IT tools. The electronic marketplace has the potential for high compatibility provided that public agencies develop adequate technical skills and that a pool of suppliers come to offer their products online, ensuring high performance, reliable delivery, and integrity.

Addressing the legal challenges domestically and at the European level

Another factor that has affected the government procurement transformation in Italy concerns those rules and regulations setting the authorising environment both at the domestic and European level. The key issue in guiding and sustaining public managers in their effort to move toward the new procurement practices is the authorising process that determines whether their practices are being conducted in compliance with current regulations for public contracts. This can create barriers for development in that regulatory provisions may put additional, cumbersome requirements on the procurement cycle and have consequences on managerial accountability. The legal challenges also pose great hurdles to the vendor community, which has to contend with a 'maze of regulations for procurement,' with central, regional, and local governments all having separate rules, some even conflicting among their own agencies.

Indeed, the legal issues regarding the use of IT tools for government procurement are multifaceted and complex. Italy regulates the award of procurement contracts by formal rules, which have legal status (although this does not necessarily mean that the rules in question are enforceable by affected individuals). The main concern of national procurement regulation is with obtaining value for money in procurement. This involves a number of aspects. First, it relates to ensuring that the goods, works, or services being acquired are appropriate to the requirements. For example, while it is important, on the one hand, that an information technology system be capable of handling all the relevant information at the required speed, on the other hand, it is important that money not be wasted on unnecessary features.

Secondly, value for money insists that the specified requirements are obtained on the best possible terms. This does not, of course, necessarily mean the lowest price: total life cycle costs, running costs, maintenance, and so on, will also often be relevant, as well as non-financial considerations such as the quality of the product or service delivery. Finally, it involves ensuring that the chosen contractor has the financial and technical capability to fulfil the contract on the agreed terms. Not surprisingly, these objectives are prominent in the Italian regulatory provisions on public procurement.

However, other objectives such as competition, publicity, integrity, and transparency have received increasing attention, specifically with the introduction of IT services in government procurement. It seems that the procedural aspects raise much concern for the legality of e-procurement operations. In fact, all regulatory antitrust and anti-mafia safeguards – as well as those warranties for publicity, transparency, and integrity in public auctions – bring a number of security issues to the centre stage of procurement. For instance, under the mandatory phase of NFCs, concerns for competition, corruption, and criminal activity emerged in the midst of all other concerns for centralisation, administrative efficiency, costs, vendor choice, and flexibility, questioning the fairness and efficiency of NFCs operated through the electronic catalogue.[14] Furthermore, the alleged support for industrial objectives – namely, favouring large companies as opposed to SMEs – was another issue leading to the suspension of NFCs in 2004.

Subsequently, with the introduction of online auctions and the electronic marketplace, the challenge became to operate these IT services in compliance with existing public contract laws. The question was whether these regulations hindered the practical adoption of these instruments. Because the use of online auctions was so new – and because they are only now slowly creeping into mainstream utilisation – only Consip mastered their application, enjoying, of course, a competitive advantage over all purchasing agencies across the nation. The first movers to online auctions were, therefore, the very few healthcare providers, universities, and local government agencies, which heavily drew on Consip assistance.

In the few experiences directly conducted by Consip or assisting its 'client,' online auction operations were implemented in compliance with the regulation on public sealed auctions (tenders),[15] which required the notification of the formal site, the duration of the procedure, and the visibility of bids (as to the content, not their source). The procedure, of course, was adjusted to the online features of the operation. For instance, during the bidding process, the identities of bidders were unknown while bid prices were shown. The system automatically assessed bids by the lowest-price or best-value criterion. Once the bidding was finished, all chronologically recorded bids were sent to the auction committee, which then proceeded to associate user codes to bidders and award the contract.

Interestingly, changes in e-procurement have often outpaced some of the laws governing purchasing at the local, central, and European levels. In particular, to allow for wider competition, the Presidential Decree number 101 issued in 2002 provided that for both online auctions and the electronic marketplace, the contracting agency needed to select potential bidders beforehand, through a set of criteria for vendors' certification. Through a public qualification notice, the contracting agency had to provide information on the amount of contract (by category of goods and services) to be awarded, as well as those technical, financial, and economic qualifications requested of vendors. Once the qualification notice was issued, at least 60 days had to elapse before the auction could take place, offering a long enough time period for a wide pool of vendors to meet contract specifications.

The Italian authorising regulation of online auctions and the electronic marketplace was, indeed, a pioneer across Europe, and greatly influenced the way the European Union subsequently regulated the so-called dynamic purchasing systems and the online auctions themselves in its first draft directive on public contracts.[16] Regarding online auctions, the EU directive put a great deal of emphasis on the technical specifications that needed to be precisely defined for all public contracts, including works, services, or goods. Each element concurring to form the price was to be quantified and expressed in figures or percentages and used to assess vendors' bids at any time during the auction. This mechanism was intended to drive prices down and apply the criterion of 'best value.' According to the EU directive, the competitive phase of the auction had to follow a thorough ex ante assessment of bids through a prequalification process. All vendors filing acceptable bids were invited to simultaneously participate in the auction, which unfolded through successive rounds with a built-in mechanism for extending duration.[17] Through the prequalification process, all issues are generally settled between the procuring organisation and potential suppliers before the time of the auction, with the only remaining issue to be settled being price.

To comply with this provision, Italian public agencies would be required to carry out the assessment of bids both economically and technically before the auction starts, and wait for the necessary time span between the invitation to bid and the execution of the online procedure. The challenge, therefore, is the economic and technical assessment of bids, which does not really coincide with the public qualification notice required by the Italian law. This may entail specialised skills in contract negotiations and market evaluations, which are not yet available at the agency level, as explained later on.

Regarding the dynamic purchasing system, the EU directive delineated a sort of electronic marketplace, which has no exact equivalent within the Italian system. Through this e-procurement scheme, public agencies can regularly purchase goods and services over a certain period of time. Contracting authorities notify an 'indicative invitation for bids,' and auctioneers or vendors put forward a bid complying with the specifications required. Each time the contract is awarded, contracting authorities renew the indicative invitation for collecting bids, which will be specified accordingly later on. Yet, since there is no comparable institution in the Italian system, such an e-procurement scheme should be assimilated or adapted as an extensive evolution of the marketplace model (Fiorentino, 2004).

Managing contracts at the agency level and the need for tailored capacity building

As already anticipated, the most relevant factor bearing on the transformation of public procurement is the way public agencies manage the new acquisition procedures. Substantial evidence indicates that management is central to the success of e-procurement projects. Such emphasis on management is justified on practical grounds because managers are in a better position to modify their management practices than conditions outside their organisation. Management capacity involves both general and specific areas. General management capabilities include project management, strategic planning, and performance measurement. These ensure proper planning and execution of acquisition processes. Specific capabilities involve how managers carry out different procurement cycles as linked to the specific agencies' procurement dynamics. For instance, researchers working in labs need chemical reagents on a continual basis. Chemical reagents, though, cannot be bought and stored in large quantity since their shelf life is very short. This implies that the procurement employee working for chemical labs needs to develop a procurement system capable of meeting such needs.

Indeed, the major problem facing procurement transformation across public agencies in Italy today concerns the poor qualifications of personnel in charge of the acquisition processes. Medium-skilled employees who are, on average, older and in low-status jobs, limit greatly the potential for change in procurement operations. The current lack of personnel to be employed as buyers is related to the halt in recruiting that the government established in 2002 as a measure of budgetary retrenchment. This, in turn, lowered morale and motivation with a weakened sense of mission.

Taking a specific look at procurement practices, the first feature emerging out of interviews with employees is the relatively unfavourable reputation 'buyers' currently enjoy among the other profiles existing within the administration. One implication of this generalised perception is that purchasing is not understood to be a critical task of public agencies as it is in the private sector. Hence, requirements for purchasing are not geared toward commercial-like practices, and public employees and agencies do not take a 'customer's perspective' in selecting and buying goods and services for the administration.

As regards specific practices of procurement, the NFC experience proved that public agencies either purchase all goods and services or nothing, resulting in unproductive and inefficient results. Purchasing, instead, should be selective, with the aim of reaching a strategic fit for determining the type and level of goods and services acquisition. This would require public managers first to understand their strategic needs and then to identify the appropriate vendor to meet those needs. Another issue is the under-budgeting for procurement expenses, which involves high cost over runs. Cost over runs hide informal, invisible expenditures due to lack of competitive sourcing.

As previously emphasised, the major administrative weakness is the lack of any mechanism for monitoring contractors and the absence of a culture of performance management. Knowledge of contract relationship management, instead, helps public managers anticipate some potential problems, such as poor service quality and unresponsiveness to service requests. One way for public managers to be certain of a vendor's capability is to conduct market surveys. Yet, public agencies commonly underestimate the resources and time involved in searching for service providers. In this respect, Consip offers the advantage of systematically surveying the market, gathering relevant information over time. The technical competencies and skills of Consip staff make market intelligence a source of precious information on quality, price, and evolution of market supplies.

Most local public agencies maintain close relationships with traditional suppliers operating within local markets. For instance, to purchase day-to-day stationery material, purchasing units call on the shop next-door with whom they have developed a fiduciary relationship over time. They are very unlikely to conduct a thorough market survey in search of the most competitive bid. Substantial supplies for large offices are likely to be sourced through a more accurate market survey. Interestingly, in purchasing goods and services, the public managers interviewed reported greater awareness of costs and service needs in their own agency, routinely benchmarking local vendors' contract conditions with those negotiated by Consip for national supplies. Yet, it is clear that across public agencies there is no incentive for creating higher performance at lower cost in procurement operations.

To ensure a good working relationship, both the agency and its vendors should observe the basic principles of relationships – making reciprocal adjustments, maintaining operational relationships, and frequently communicating. Public agencies need to communicate their service needs and concerns so that service requests and changes can be integrated into subsequent modifications and upgrades in service delivery. In other words, a performance management system should be in place, taking care of such issues as pricing, payment, warranty, dispute resolution, and security issues. The primary instrument of performance management is the use of service-level contracts that describe the types and scope of service provided, service availability, and performance measures. A service-level contract builds flexibility because service priority and needs are likely to change, penalty clauses are contested when service quality is not met, and pricing is clear on the amount of service delivered.

Due to the rapid spreading of new e-procurement models across agencies at the local level, public managers will have to come to terms with the reality of managing contracts. For weaker agencies, though, a sustained effort in tailored capacity building is needed. As previously anticipated, to address such critical needs, the Audit Court has recently asked Consip to develop a monitoring system in collaboration with the National Statistics Institute to routinely gather relevant information on the status and performance of NFCs. The Audit Court has basically recognised that relationship management is a key component of successful e-procurement and that Consip should play a role in establishing a good relationship between the agency and vendors.

In this regard, Consip has set out to step into the relationship between purchasing agencies and vendors through the creation of an accreditation system. Certified auditors should systematically check upon contract relationships, follow up on contract terms, and periodically visit suppliers to verify the quality of their products. Institutes for accreditation of procurement operations would then give some assurance that acquisition processes at the agency level are geared toward obtaining value for money in compliance with public contract rules. Yet, if accreditation could improve procurement operations, it could still end up just as an additional requirement, eliciting bureaucratic compliance but not actual excellence in procurement. A demand-driven approach would instead require a much greater involvement of Consip in tailoring capacity building at the agency level.

Opening up to competition and levelling the playing field for large and small suppliers
The central model of NFCs was criticised for restricting competition to large firms able to provide national supplies by meeting the product specifications set forth by Consip nationwide. Allegedly, the system was crowding out small firms, since they could not qualify to bid for large public contracts. Thus, concerns for equity and a level playing field were raised, pointing to the question of whether to enhance customisation of acquisition procedures, public procurement should favour small firms versus large well-established suppliers across the nation.

As is well known, the costs of complying with government procurement regulations often keep small firms from bidding. The cost of regular bidding for e-procurement projects may be prohibitive due to significant investment in service transition and establishment of a capital facility. The accreditation and certification processes required for participating both in the marketplace and online auctions may act as additional barriers imposed on small firms to bid for government contracts. At the same time, small firms simply do not have the connections in government that make for successful bidding. Furthermore, the government usually pays contracts upon delivery and inspection, and without advances. This also keeps many small firms from bidding for public contracts, because they do not have sufficient reserves or outside finance for working capital. Finally, the government in Italy frequently pays its suppliers after considerable delay, which eliminates yet another tier of potential small-firm bidders.

This means that the competition faced by the firms that are capable of bidding successfully for public contracts is more restricted than it is assumed to be. The price and quality of goods and services procured by government, therefore, fall considerably short of the competitive ideal. Yet when small firms are 'entitled' to special consideration – because, for instance, they are traditional suppliers of goods and services – both the customer and the supplier tend to suspend judgment about cost and quality. In some cases, the suppliers know they are entitled to a protected niche regardless of performance, and the public sector customers know they must buy from these firms for 'social' reasons (Tendler, 1997).

Large suppliers may not start with the quality problem and the high transaction costs that small firms present to government. Yet, large firms often sell their lower-quality output to government because they perceive government to be a less demanding customer than the private firms to which they also sell. Government's delays in paying its suppliers, moreover, cause the suppliers to search for additional contracts from private customers to compensate. The additional contracts make it difficult for these suppliers to execute their public contract efficiently. All these factors add up to a set of disincentives to efficiency and a process of "adverse selection" among the firms that typically bid for and win government contracts (Tendler, 1997).

Thus the problem of quality and cost in public procurement is not linked necessarily to the size of firms coming to sell their products to government. Instead, various factors conspire to cause the government suppliers to sell their lower-quality or higher-cost goods and services to government. The end result is the same disincentive to quality that occurs, for different reasons, for small firms that gain a fixed share of the government market. Smaller firms, in turn, may not produce exactly what government needs and may require more guidance, but they may also value government more as a customer because they lack the market alternatives that large firms have.

In Italy, in the current non-mandatory system, both NFCs and the electronic marketplace are appealing opportunities to open up the market of the public sector, traditionally segmented at the local or agency level. Yet, to avoid excessive concentration of the market for large-volume contracts, NFCs should be set for smaller-scale supplies and allow for effective groupings of small firms across the country. As for the electronic marketplace, in principle there exists the possibility of widening competition among small and large vendors. Yet, transportation costs, delivery time, and the fiduciary relationships existing between public agencies and local vendors may again raise efficiency questions. Last but not least, the viability of an electronic marketplace is partly dependent on the availability and reliability of vendors.

The availability of vendors is the precondition for engaging in competitive bidding. The reliability and quality of vendors affects the amount of risks involved in e-procurement. Currently in Italy, for the central government, availability and reliability are usually not a major issue: E-procurement is provided primarily through well-established vendors, specialised in providing government services. At the local level, however, particularly for some small and remote municipalities, access to quality vendors continues to be a challenge. In such circumstances, a vendor awarded through an IT procurement contract is likely to develop skills and knowledge that are geared to a specific type of supply. This creates a competitive advantage of existing suppliers over potential bidders. As a result, the competitive market is less likely to exist for an e-procurement project at the local level.

These observations contain two implications for procurement development. First, the playing field on which firms bid for government contracts is less level than is implicitly assumed. This is not to say that the government should reserve special treatment for small firms as opposed to large ones, or for nationally recognised firms versus those operating only at the local level. Indeed, the problem is not equity but efficiency. Second, contracting out for goods and services previously produced 'in-house' by government is not the solution to the problem of low quality and performance. In these circumstances, Consip assistance to the agency should indeed help create the capacity to scan the market and search for more competitive bidders. This, in turn, could open up opportunities for competition and drive prices down at the local level, too.

Finally, in the current non-mandatory system, firms need to face the strategic decision of whether to invest in specific supplies requested by public agencies, though there is no guarantee that public agencies will then purchase from their electronic catalogue.[18] In this regard, Consip has begun to consult business organisations in order to openly negotiate how and to what extent suppliers will be able to match the public sector's demand for goods and services. Currently, the negotiation of NFCs builds on a broad-based effort for participation involving both public agencies and business associations in the decision-making process.

Findings and Recommendations

Findings

Finding 1: Demand-driven approaches are more effective in addressing public agencies' needs than supply-driven approaches.

Consip's architecture of centralised public procurement involved two distinct groups of actors – that is, public agencies and vendors, who were expected to work together under the central coordination of Consip. In such a supply-driven system, purchasing units were required to buy from those vendors winning the large supplies negotiated by Consip at the national level.

One of the main arguments for a supply-driven approach is that centralised negotiations for substantial volumes from single large suppliers brings economies of scale in purchasing and public spending savings for goods and services. That is why government prefers 'packaging' many small contracts into single large contracts. Centralised purchasing and bundling of contracts, however, also can involve distinct diseconomies in that they often impose greater transport and storage costs. This is particularly true in public services like education and health, which buy goods and materials for numerous dispersed locations.

Consip's experience presented an unusual opportunity to compare supply-driven and demand-driven approaches within the same system, though in different points in time. Enjoying the limelight in the first two years of e-procurement operations through NFCs, Consip's supply-driven approach began to be criticised because of the rigidity of the system, allowing very little room for specialised requests and materials as well as supplies from small and medium firms. In Italy, in particular, the 'lack of cooperation' by Italian public agencies signalled that this mandatory supply-driven approach to public procurement was not meeting requests from individual groups of agencies or adapting to the particular circumstances under which they operated contracts.

The major problem public agencies encountered in the implementation of the new procurement system lay in the contracting procedure. Consip was not expected to support the purchasing agency in contract implementation and management. This meant that there was no mechanism to share and contain the risk for vendors' under performance, delivery delays, and fraud. If an item proved defective, there was no information and monitoring system that could signal Consip that the firm was contractually responsible. A demand-driven approach requires Consip's involvement in continuously tailoring capacity building to address contract-management-related problems at the agency level.

Finding 2: Policy, regulatory, and technology factors should be incorporated in the design of public procurement systems.

Policy, regulatory, and technological factors are important dimensions of the current transformation of the Italian public procurement system. The public spending rationalisation policies dictated the priority and timetable for the specific procurement initiatives undertaken at the national level, while the authorising process of e-procurement determined the flow of resources for acquisition operations and assessed whether those resources committed to the enterprise were being used well. The nature of IT services introduced within public administration, their complexity and compatibility, set instead the pace for IT adoption and usage across public agencies. At present, there are four IT instruments designed to address specific purchasing needs at different levels of administration. In this respect, regulatory provisions seek to make the use of IT services in public contracts compatible both at the national and European level. Yet the need to adjust regulatory provisions to fast-changing IT services is a challenge, which may in turn create barriers and/or opportunities for further development of e-procurement. In particular, from both a political and an institutional standpoint, the Italian case shows the importance of designing institutions that build upon pluralistic decision making so as to represent different stakeholders and positions related to procurement choices.

Finding 3: Policy makers should be aware of politically sensitive changes in the procurement system.

The procurement experience revealed a dilemma, which Consip has come to tackle only recently. The concentration of attention at any moment in time on certain groups of producers can create political problems in the form of allegations of inequity and favouritism by the unattended groups or regions. Because of the predominant concern for rationalising public spending through large national supplies, the programme's resources were ultimately spread too much across large companies at the expense of small and medium firms. Consip has recently shown ways of meeting these practical challenges by inviting business organisations to participate in NFCs' negotiations, breaking down national contracts for large supplies into several contracts for smaller lots by geographical areas, and promoting small firm groupings for bidding. Whether or not the Italian experience was effective in meeting these practical challenges, it reveals the importance of identifying and facing them. In particular, from both a political and an institutional standpoint, the Italian case shows the importance of designing institutions that build upon pluralistic decision making so as to represent different stakeholders and positions related to procurement choices.

Finding 4: The implementation of an effective procurement system requires strategic management capacities.

The analysis of Consip confirms that management is important in transforming the government procurement system into the e-procurement system. Management through performance measurement and the commitment of sufficient resources are keys to success. Practically, public procurement dynamics and challenges vary significantly across public agencies. Although the problems afflicting public agencies tend

to be generally characterised as lack of qualified personnel, limited technical and managerial capacity, and difficulties in monitoring contracts, the needs of purchasing agencies differ markedly from one sector or subsector to another. Consip assistance was not tailored to the conditions under which most public agencies operated contracts, where the IT equipment was less sophisticated. In particular, the management of contract relationships with vendors overlooked the importance of intangible resource investments, such as coordination and communication, which are critical to ensure that service requests and changes are integrated into subsequent modifications and upgrades in service delivery.

Finding 5: Public managers should assess the quality and performance of both large and small suppliers.

Regardless of the alleged favouritism for large or small firms that the public procurement system could engender, the major problem plaguing the Italian public procurement system was the poor quality of products or services provided as a result of a too fragmented system of competition. The market is highly segmented at both the agency and local level. The playing field on which both large and small firms bid for government contracts is less level than is implicitly assumed. Currently in Italy, availability and reliability are usually not a major issue for the central government: E-procurement is provided primarily through well-established vendors, specialised in providing government services. At the local level, however, particularly for some small and remote municipalities, access to quality vendors continues to be a challenge. In such circumstances, a vendor awarded an IT procurement contract is likely to develop skills and knowledge that are geared to a specific type of supply. This creates a competitive advantage for existing suppliers over potential bidders. As a result, the competitive market is less likely to exist for an e-procurement project at the local level.

Finding 6: The improvement of public procurement is the result of a centrally guided decentralised capacity-building effort.

Improvements in local agencies' procurement turn out to be less the result of decentralisation than a three-way dynamic among local government, Consip, and vendors. To the extent that the Italian case involved decentralisation, it revealed something quite different from the unidirectional transfer of power and funding from central to local that is at the heart of the stylised portrayal of decentralisation. Most strikingly, the central government through Consip took power away from local public agencies, even though its actions ultimately contributed to strengthening the capacity of local agencies. Consip designed and developed the new procurement architecture, negotiated the volume of goods and services needed by local government, carried out online auctions (replacing purchasing agencies directly), and provided assistance to spread IT across the country. The result was that through open antagonism between different levels of government, public agencies came to master IT means, which in turn implied a new way to conduct procurement.

Recommendations

1. Recommendations for public managers:
Contract management is key for successful procurement.

a. First, public managers need to take a long-term, strategic approach to e-procurement. Changes in service need mandates and the fast-changing nature of information technologies all demand flexibility. A partnership approach to e-procurement, integrating local needs with central coordination and support, has been shown to be adaptive to new service demands. To build a partnership, public agencies need to have a clear understanding of their service needs and the strengths and weaknesses of vendors. This understanding will help identify mutual long-term benefits that will help sustain the partnership.

b. Second, public managers need to shift their perspective from traditional procurement to relationship management. E-procurement schemes should be seen as a relationship between public agencies and their vendors and managed as such. The case analysis supports the importance of this new perspective. From the initial needs assessment, public agencies have to map out an operational relationship and the management practices that can foster a productive relationship with vendors. Another important ingredient for sustaining a relationship is a substantial investment of time and resources in communication and collaboration for service improvement.

c. Third, performance measurement and service-level contracts are essential for the management of e-procurement procedures. Performance measures need to be specified as early as the contract is awarded. The detailed provisions on performance standards for reliability and the availability of vendors help agencies find a competent vendor and maintain a high level of control. In this respect, it is indispensable for developing a system of systematic monitoring and performance measurement to check upon quality, reliability, and integrity of vendors. The use of a service-level agreement allows public managers to track the performance of a contract, and the subsequent performance data form the information basis for identifying areas of improvement. A service-level agreement needs to have performance measures, but it also needs reporting requirements, warranty clauses, penalties for non-performance, and dispute resolution mechanisms.

d. Fourth, as a practical matter, public managers need to be keenly aware of the cost implications of the new approach to e-procurement. A trade-off exists between potential cost savings from simply sourcing the needed goods and services and the new cost incurred from managing the sourcing arrangement.

Using mechanisms such as convenience fees to finance a procurement system may require fewer outlays than if the programme is administered in-house. Indeed, most experiences developed at the regional level show that the electronic catalogue and marketplace is almost entirely funded by vendors who have an interest in and capacity for managing and marketing their online supplies. However, the personnel time and resources that are required to successfully manage a sourcing relationship operated under the partnership principles may be significant. These costs may be incurred as the result of the modification of existing business processes, frequent service communication and adjustment, and personnel time devoted to overseeing the project. Public managers need to consider these cost items when deciding on procurement processes.

e. Fifth is the importance of using knowledge networks for all stages of e-procurement management. For instance, an interview with a central buyer indicated that often public agencies tap into a knowledge network to decide on a vendor. The accumulated wealth of experience and tacit knowledge may be recognised and formalised to promote market intelligence to find the best vendors. In this respect, Consip is becoming a repository of information regarding bidding practices, online auctions, and vendor reliability that can be shared with other agencies at the regional and municipal level and used by all other units in government. This move will help build management capacity across public agencies.

2. Recommendations for Consip:

Capacity building needs to be tailored to the needs of a single public agency or a set of agencies to enhance customised procurement.

Consip should tackle one of the major problems facing public agencies – that of finding reliable vendors so as to be able to focus on improving productivity. Instead of providing standardised assistance on a variety of e-procurement aspects to the largest number of public agencies, Consip should devote its assistance to one set of public agencies in a specific sector. It can then focus on problems that come up in the course of defining contract specifications and deadlines, and managing relationships with vendors. All of this requires that Consip concentrate its efforts on one or a few agencies with the same procurement dynamics, needs, and challenges. As a demand-driven approach is problem driven, iterative, and results oriented, it works best when it subjects both vendors and customers to a tough test of performance: If the product of a vendor does not meet competitive standards of cost, quality, and timely delivery, the customer (the government purchasing agency) will simply not accept the goods or will not renew the order. This impels Consip to strive, together with the purchasing agency, to strictly monitor performance for better quality and stronger reliability.

3. Recommendations for countries transforming their public procurement systems:

A centrally guided decentralised approach should reconcile national strategic procurement objectives with the specific needs of agencies.

a. All those countries currently transforming their procurement system are required to overcome the human resource, organisational, institutional, regulatory, and policy constraints that act as barriers for effective procurement practices. The Italian experience suggests the need for a radical, top-down intervention for widely restructuring acquisition processes through strong political commitment, long-term vision, and strategic management capacities. Working as a public company, Consip was designed to avoid red tape, operating outside the administrative rules and regulations in ways that elicit higher worker dedication, include a combination of IT and project management skills, and are more client-sensitive and customised.

b. Reform-sustaining programmes are difficult to design and successfully implement unless they are backed up by local initiatives. It has been widely recognised that simply applying a new set of rules to the people at the top will not affect the performance of an organisation at the bottom. On these grounds, the Italian case reveals that preoccupation with compliance to rules, centralisation, and public spending rationalisation went at the expense of procurement results at the agency level:
Public managers viewed centrally mandatory acquisition operations as keeping their personal conduct formally in line with the new rules, and the culture of the public procurement tended to reinforce that view.

c. To spur a cultural change, it becomes essential to replace the restrictive government rules that keep managers from using people effectively and to motivate those at the lower levels who are immersed in the day-to-day details of procurement practices. Procurement employees are confronted with highly specific issues; they often find it extremely difficult to be heard at the top and empowered to turn their own information into useful knowledge for strategic procurement. The Italian experience shows the importance of enhancing frontline workers' initiative and performance through continuous capacity building and technical assistance for project management provided by the centre upon request.
A centrally guided decentralised approach seems to be the answer, balancing at the same time the need for better performance with strengthened administrative capacity at the local level.

Appendices

Appendix I: Analytical framework, research design, and methods

This project aims to examine the procedures developed by Consip for e-procurement at the central level and their impact on public spending for goods and services, as well as the relationships between public agencies and vendors. The project builds on a case study approach in order to identify the key features of the Consip e-procurement model and explain both the reasons for its success and its limitations. As defined by Yin (1994), "a case study is an empirical inquiry that investigates a contemporary phenomenon with its real-life context, especially when the boundaries between phenomenon and context are not clearly evident." In other words, the study proposes to use a case study design because the contextual conditions are believed to be very relevant to the phenomenon.

Analytical framework of the study

Three bodies of literature are relevant to gain insights on the impact of e-procurement initiatives on public agencies' spending patterns. First, the literature on IT in public administration has dealt with the adoption, use, and management of IT and systems as well as its productivity implications. This literature not only addresses IT-enabled reinvention and government reforms, but also description, assessment, and management of Web-based e-government projects. However, this body of literature deals very little with the institutional, organisational, political, and managerial factors affecting an e-procurement system.

The second body of relevant literature is about regulatory initiatives of public procurement and contract law, which reconstructs the various legislative steps undertaken thus far at both the domestic and international level to reform government procurement systems. But, again, there is little discussion of the implications of such new regulatory prescriptions on the organisation and management of e-procurement schemes.

Business literature on e-procurement constitutes the third main body of relevant literature. Compared with the preceding two bodies of literature, this deals more directly with the determinants of e-procurement and its relation to e-commerce forms. Nonetheless, it is problematic to transfer knowledge directly from the private to the public sector due to differences in the development and implementation of e-government tools across sectors. One difficulty is that multiple goals rather than cost minimisation are the primary motivation for e-procurement in the public sector.

The analytical framework (see Figure A.1 on page 40) adopted by this study seeks to integrate analysis of external factors with management capacities and strategies for e-procurement development and effective use. In particular, this research puts management capacities and practices in their organisational and environmental contexts. External factors are the external influences on the overall public sector in its e-procurement decision making and management. Internal factors are the specific management practices and strategies for e-procurement. The outcome variable is performance, which in the specific Italian experience was preponderantly geared toward measuring public spending reduction at the aggregate level. In fact, the study reports estimates of public expenditure savings, but it does not thoroughly discuss performance as a multidimensional construct, including service quality, quantity, and timeliness. Because of the lack of performance indexes and standards for assessing outcomes, examples cited in the report concern more prescriptive outcomes than measurable results.

Figure A.1: Analytical framework of the study

External factors

Internal factors

Political/regulatory environment

Nature, size, reliability and integrity of vendors

Features of technological services

- Consip organisation and human resources
- Top management support
- Technical assistance and support to public agencies
- Commitment of financial and human resources to e-procurement within public agencies
- Agency-vendor relationship management
- Management capacity
- Performance Management
- Performance measurement

Outcome/performance

- Savings in public spending
- Quality
- Timeless

Methods of data collection

Research data were collected through the following:

- Semi-structured interviews of samples of informants
- Document analysis of official documents and evaluation reports
- Social science literature review.

The research questions

The study addresses the following research questions:

1. What are the main strengths and weaknesses of a centralised system of public procurement?
2. To what extent has public agencies' spending been contained or reduced through e-procurement schemes?
3. What challenges do public agencies face in using e-procurement?
4. What implications do public procurement provisions raise in terms of vendor choice and competition?
5. What are the implications for e-procurement in terms of institutional design and management?

Internal and external validity

This study uses a qualitative design as described by Creswell (1994), and Wholey, Hatry, and Newcomer (1994). A qualitative study is defined 'as an inquiry process of understanding a social or human problem based on building a complex, holistic picture, formed with words, reporting detailed views of informants, and conducted in a natural setting' (Creswell, 1994; Miles, Huberman, 1994). The approach is interpretative. No statistical sampling was conducted, as the aim of the study is to reconstruct the public procurement system's features and functioning within the specific context of the Italian public sector to generate a number of hypotheses based on respondents' perceptions of how it may be 'improved' and enhanced in other contexts. Furthermore, for the case study analysis, the strategy was to use a pattern-matching logic. This approach (Yin, 1994) compares an empirically based pattern with a predicted one (or with several alternative predictions). If the patterns coincide, the results can help a case study strengthen its internal validity.

Interviewee's profile	
Interviewee	**Number of interviews**
Policy makers	3
Consip top decision makers and managers	4
Members of business associations	3
Experts	4
Buyers	5
Vendors	3
Total	22

Table A.1

Interviews

Interviews were used to gather opinions and perceptions about how nationwide changes in procurement procedures were designed and implemented by Consip. The interviews describe and analyse the three major factors expected to affect both the development and implementation of government procurement – that is, external factors, internal factors, and performance – as outlined in Figure A.1.

In particular, interviews were conducted with five samples of informants to be able to triangulate different perspectives, perceptions, opinions, and descriptions (Stake, 1995). The samples of informants included:

- High-level policy makers and top officials at the Ministry of Economy and Finance (MEF) responsible for PRSP
- High-level decision makers and line managers at Consip
- Buyers at the central level
- Representatives and experts of business organisations
- Vendors.

First, top officials at MEF and policy makers were interviewed to grasp the rationale for procurement transformation through IT procedures. Second, Consip decision makers were interviewed to gain insights on how Consip has operated thus far, its pattern of relationship with public agencies, and its prospects for the future. Third, buyers were interviewed to understand which technological, organisational, regulatory, and managerial factors are associated with the willingness and experience to use IT services for procurement. Fourth, representatives and experts from business were interviewed to gather their comments and perceptions on the technical and economic aspects of procurement reform. Finally, vendors who have been awarded contracts through e-procurement operations were interviewed to understand the advantages and disadvantages associated with nationally based supplies. Table A.1 specifies the composition of the samples of informants and indicates the number of interviews conducted in each category.

All interview questions were tailored to the interviewees during the interviews. Although all interviews were confidential, background information was collected for all interviewee samples, including their position and length of time in the agency, prior work experience, education, professional field, and political orientation. The interviews were not taped for three reasons. First, based on prior experience, interviewees may be extremely cautious and reluctant to open up if their statements are recorded. Taping could be perceived as not ensuring confidentiality and hinder a trustful relationship between interviewer and interviewee. Second, Consip interviewees and all other decision makers are typically very busy. A successful strategy to gain an interview was first to ask for 20 to 30 minutes of time as a conservative request and, once the interview was underway, trying to stimulate the conversation and take additional time for probing. In such delicate circumstances, the tape could have diverted attention and undermined the quality of the conversation. Third, interviewing high-level managers and policy makers who are of the professional elite requires social psychological skills. Asymmetrical relations between the researcher and her 'objects' of study are not always clear-cut, as Pierce (1995) notes. In such circumstances, the tape could have added tensions and threats to both the interviewer and interviewee. All interview notes taken during the interview sessions were coded and analysed.

Document analysis

Content analysis of archival documents consisted of a review of project, programme, and strategy internal official papers to identify themes surrounding the creation and functioning of Consip. In particular, the research drew on financial and budget data from the Ministry of Economy and Finance and Auditing Court. Web-based information was also extensively reviewed.

Data analysis

The interview and observation data, along with the contents of the documentation and the social science literature review, were analysed vis-a-vis the three dimensions of the study's analytical architecture: external factors, internal factors, and outcomes and performance. Specifically, respondents' comments, opinions, and perceptions of change were interpreted as stemming from e-procurement use (Stake, 1995). The pattern-matching technique (Yin, 1994) was adopted to search for patterns of data, detect correspondence with theoretical assumptions, and draw tentative conclusions (Stake, 1995).

Focus of the study

The study focuses on the specific organisational setting of Consip and the impact of its procedures at the central government level. First and foremost, the aim of this study is to highlight key aspects of e-procurement practices as developed with the Consip framework. Second, owing to its regulatory and institutional mission, this organization has built a reference experience for developing further e-procurement initiatives at the local and regional levels.

Limitations of the study

First and foremost, the major limitation is related to the specificity of the case study as context- and topic-sensitive. Consip is a unique institution, and any analysis of its functioning is inherently related to its specific institutional and organisational arrangements, culture, practices, human resources, pattern of past performance, and strategy for the future. Furthermore, the topics of the study are not neutral. The conclusions as far as the use of e-procurement tools, the changes that occurred, and the policy implications relate only to these specific issues. Second, another limitation concerns the qualitative methodology of the research. Perceptions and opinions, though relevant, are specific to interviewees' experience, understanding, beliefs, culture, and context.

The Intended audience

The intended audience includes central administration managers, procurement specialists, university faculty and researchers, business organisations, suppliers, overall private sector agents and consultants, and countries currently transforming their public procurement system.

Research questions	External factors	Internal factors	Outcome/performance
1. What are the main strengths and weaknesses of a centralised system of public procurement?	• Aggregation of public sector needs and acquisition processes • Government-wide mandatory compliance with NFCs • Standardised approach to public procurement • Excessive centralisation • Restricted vendor choice	• Support for weaker administrative capacity at the agency level • Avoidance of inefficient procurement practices at the agency level • Failure to address specific needs of purchasing agencies	• Expected savings in public spending at the aggregate level and efficiency gains at the agency level • Reduction in procurement cycle time • More standard procedures across Italy
2. To what extent has public agencies' spending been contained or reduced through e-procurement schemes?	• The economic and financial provision for the 2003–2006 period was increased by €3.700 million in 2003 up to €7.900 million in 2006, stemming from both decreases in unit prices and consumption	• Expenditure may or may not have increased at the agency level because of problems experienced with NFCs	• Lack of data on actual savings
3. What challenges do public agencies face in using e-procurement?	• Technological complexity and compatibility of IT services • European and Italian public contract laws • Requirements for publicity, transparency, and competition • Newly introduced procedures on public qualification notice for vendor accreditation	• Unqualified personnel • Lack of managerial capacity for e-procurement contract relationship • Lack of performance management • Increasing benchmarking of the price and quality parameters of NFCs	• Low compatibility of e-catalogue for specialised supplies • High technological complexity of online auctions • Discrepancies between Italian and European legislation on e-procurement
4. What implications do public procurement provisions raise in terms of vendor choice and competition?	• Levelling the playing field for both large and small suppliers	• Assessing vendor quality and measuring performance of procurement arrangements	• Expected broader competition • More competitive sourcing
5. What are the implications in terms of institutional design and management of e-procurement?	• Centrally guided decentralised approach • Government-wide reform backed with capacity building tailored to the local and agency contextual conditions	• Performance management • Upgrading personnel skills • Service-level contracts • Performance measurement • Pricing • Monitoring mechanisms • Penalty clauses	• Value for money • Increased productivity of public sector

Appendix II: The case of SIEP in the province of Salerno, Italy

This case study illustrates the e-procurement system (SIEP) implemented by the province of Salerno and co-financed by the European Union. SIEP proposes an innovative approach that breaks with the national e-procurement model of Consip. Instead of centralising purchases, ruling out small local suppliers, and imposing standardised products, rigid catalogues, and outdated solutions far from the specific needs of local public customers and businesses, SIEP is an example of bottom-up local marketplace creation that is transferable at the regional level. SIEP assures time and cost savings for public agencies while strengthening transparent and cost-effective relations with local businesses.

The case in brief

SIEP is an e-procurement system project launched in the spring of 2003 by the province of Salerno, co-financed by the European Union Structural Funds. The project is being first implemented within the province of Salerno, including 158 municipalities. Over the next two years, SIEP will be extended to the whole Campania region, including all other provinces (namely, Naples, Caserta, Avellino, and Benevento), municipalities, and local forest agencies. SIEP aims to ensure transparency, faster ordering, and time and cost savings for all procurement processes, promoting greater vendor choice for public agencies and harnessing the supply of local businesses.

The model of the marketplace: Opportunities and challenges

In contrast with the Consip experience, which did not involve local public agencies and small and medium businesses in the choice of vendors, SIEP intends to coordinate the 158 municipal governments belonging to the province of Salerno in the e-procurement process. The aim is to create a marketplace through the bottom-up aggregation of the procurement demands of local public administrations by an online process of public tendering. Local public agencies come to share their needs and processes, avoiding Consip's top-down imposition of standardised vendor products, solutions, prices, timing, and procedures.

To date, the province of Salerno has held a series of meetings with procurement officers in each municipality to both forge an agreement on procurement procedures and train civil servants to manage electronic operations. An online questionnaire has also been distributed to glean specific procurement demands and hence tailor the system according to customers' needs. The aim is to empower municipal governments and gather relevant information for a tailor-made e-procurement system.

SIEP offers at least three advantages. First and foremost, SIEP assures transparency of all online procedures, since all procurement operations are certified electronically. Second, online auctions allow for drastic time savings while all participants receive the same information. Last but not least, purchasing cost savings are obtained through selecting the best supplies publicly advertised on the Internet, leading to a more accountable procurement system.

The challenge of SIEP is not only to assure sustained and continuous coordination of 158 municipalities, but also to modulate their inherent differences. For instance, the municipal government of Cava de' Tirreni includes 80,000 inhabitants while the municipality of Serramezzana has only 400. Undoubtedly, the former presents needs, purchasing patterns, and innovation propensities completely different from the latter. Managing these differences is key to setting in motion a truly bottom-up e-procurement system where public administration no longer imposes a price and a product, but a market-driven process develops through transparency and compliance to rules.

End notes

1. Based on interview with Consip staff.
2. Based on interviews.
3. Based on interviews with Consip staff and document review.
4. Based on the Court of Audit report (2003).
5. Based on interviews.
6. Based on interviews with three firms winning NFCs for laptops, space management, and stationery supplies.
7. Based on interviews with Consip high-level decision makers.
8. Further information is available at the following Web site: www.buoniesempi.it.
9. Cooper, Zmud, 1990.
10. Based on interviews with the top manager of the purchasing system within the Ministry of Education and Scientific Research.
11. Online auctions were also used to stipulate NFCs.
12. Based on interviews with the top manager of the purchasing system within the Ministry of Education and Scientific Research.
13. Based on interviews with the top manager of the purchasing system within the Ministry of Education and Scientific Research.
14. Based on interviews with a senator.
15. The auction mechanism is established by article 89 (1) (a) of Royal Decree no. 827, 1924 (Fiorentino, 2004).
16. At the European level, e-procurement processes aim to increase competition and the cost effectiveness of acquisition processes in compliance with the Community principles of 'equal treatment, non-discrimination, and transparency.'
17. The problem of non-correct behaviour still remains, however – for example, the auction term "cut and dog" practice, in which large companies adopt to rule out smaller businesses.
18. As reported by a representative of a business organisation, firms in the automotive industry reported that they are not interested in dealing with the public sector.

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