

**E-PROCUREMENT AT WORK:
A PRACTICAL EXPERIENCE IN ITALY**

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ABSTRACT. The paper addresses the legislative context for e-procurement in Italy and some practical experiences carried out in compliance with this legislation. Italy was one of the first countries in the EU to adopt a legislation on e-procurement which allows Public Administrations, both central and local, to carry out their purchase activities using electronic means. Italy has also been considered as an example by the EU legislator when adopting the directives on e-procurement. Akhela and Thesia have developed an e-procurement platform which has been used by some Public Administrations for experimenting both the marketplace and the electronic auctions thus allowing important savings. One of these public bodies, the Municipality of Rimini, has been awarded the first prize in the E-gov 2005 competition.

THE ITALIAN LEGISLATION ON E-PROCUREMENT

Italy was one of the first European countries to adopt a legislation on e-procurement. The first initiative concerning e-procurement in Italy was the Program for the Rationalisation of Public Spending which was contained in the Financial Act for year 2000, represented by Law 488/1999.

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The aim of the program was to obtain savings and a bigger efficiency in Italian Public Administrations. The responsibility for the Rationalisation Program was delegated to CONSIP, which is a private company totally owned by the Ministry for the Economy and Finance and whose marketplace is a reference point for all Public Administrations.

At present CONSIP offers Public Administrations three different ways of carrying out electronic purchase, all of which can be accessed via the internet site www.consip.it:

- the marketplace, which is the electronic market where Public Administrations can purchase directly from supplier catalogues or submit a request for quotation. The marketplace is open to all Italian suppliers. The registration of suppliers is completed on-line and includes standard details such as the size of the organisation and a guarantee of quality. Supplier's authentication is based on trust. Once registered, the supplier can choose to supply a single province or the entire country.
- general purchase agreements, which aim at negotiating the best price and quality conditions for general categories of highly used goods whose features are the same for most Public Administrations (such as, for example, stationery, telephone services, cars, and meal coupons). In this case all Public Administrations can purchase directly on the basis of the obtained prize.
- electronic auctions. In this case, among the different kind of auctions available, reverse on-line auctions are increasingly being used as a mean for purchasing goods and services that are specialised, highly configurable, with high price volatility and rapid obsolescence.

In 2000 the Italian government also launched the national action plan for e-government, which presented the strategy for radically changing the Italian Public Administration using computer based technologies and which can be considered as the reference point for all e-government achievements in Italy. E-procurement was considered as an important part of this project since its introduction was aimed at:

- reducing expenditure for purchase of goods and services in Public Administrations;
- making purchase procedures quicker and simpler;

- guaranteeing the maximum transparency in all purchase procedures;
- opening the supply market in order to make it more competitive.

As a matter of fact, it is important to point out that the diffusion of e-procurement in the public sector is part of a wider project of renewal of the Italian Public Administration activity by means of a widespread use of computer based tools. This project started in the 90's and found its legal base in article 15 of Law 59/97, the so called Bassanini Law, which introduced for the first time the principle of general legal validity of computer based administrative activity having the same value of the traditional paper based one. Thanks to this provision it was possible to adopt a specific regulation and the relevant technical rules which ruled the use of digital signature, as a mean to sign a computer based document. Its use is also expressly foreseen in the Presidential Decree 101/2002, which is entirely dedicated to e-procurement in Public Administrations and which was also considered as an example by the European legislator when adopting the directives on e-procurement.

Presidential Decree 101/2002 allows Public Administrations to carry out electronic purchase of goods and services in alternative to the Consip system.

The legal base of this regulation is represented by Law 24 November 2000, n. 340, whose article 24 foresaw two important innovations. The first one concerns the publication of call for bids on Internet, as an alternative way of advertising in addition to the traditional ones represented by newspapers and the notice-board of the public body. The second innovation is the most relevant one, since it delegated the government to adopt a regulation whose aim was to define the procedures for choosing the contractor and the ways Public Administrations can use computer based tools in order to purchase goods and services. As a result of this provision, the government adopted Presidential Decree 101/2002, which contains the regulation on computer based procurement for Public Administrations. Before carrying out any electronic purchase activity, Public Administrations are requested to proceed to a specific public pre-qualification phase. Pre-qualification call for bids have to be published also on the web site of the proceeding administration. As it was said before, the regulation requires the use of digital signature in order to confirm all operations carried out within the computer-based system.

As said before, Italy has a long-standing legislation on digital signature and was, followed by Germany, the first European country to adopt a specific law on the legal recognition of digital signature in 1997. Therefore the legislator decided to provide for its use as a further measure to ensure authentication, confidentiality, data integrity and non-repudiation of all operations carried out within the e-procurement system. As far as the system is concerned, the regulation singles out the system manager, defined as the public or private subject that the Public Administration can use for the technical management of the computer based negotiation system. As a consequence, the system manager is responsible for all technical operations concerning both all pre-qualifications phases and purchase activities, as well as the management of the activities requested after the purchase has been successfully carried out, such as, for example, the electronic notification to the winner of an electronic auction or the notification to a supplier that his offer is the best but that its prize represents a so called “abnormal rebate offer”.

The manager of the e-procurement system can be an internal subject or an external one. As far as e-procurement experiences carried out by Italian Public Administrations are concerned, the overall majority of them have chosen to make use of external applications, based on eSourcing service providers. In this case the platform is put at disposal by third-party providers that also manage a number of support services such as training, help desk, during the negotiation phases and reports. In general, these applications are addressed to both Public Administrations and private companies that want to use the electronic purchase tools autonomously without having to deal with their management and development.

The regulation foresees two ways of purchase for Public Administrations: electronic auctions and the electronic market. Both require Public Administrations to pre-qualify all suppliers issuing a specific notice. Electronic auctions are ruled by articles 9 and 10 which do not indicate exactly how the auctions have to be carried out, neither do they tell which auctions can be carried out electronically. Therefore Public Administrations have a certain freedom to carry out electronic auctions and electronic purchase provided that transparency, equal opportunities and respect of all laws concerning contractor selections are respected.

The above mentioned articles mainly regulate all the activities that have to be fulfilled before the start of the electronic auction.

After all interested suppliers have presented their credentials it is possible to fix the date of the electronic auction which substitutes the traditional public tender for contract, for all purchases over or under the European Union threshold of €211,000. This means that all suppliers have to present their offers using the e-procurement application.

For all purchase transactions under the European Union threshold of €211,000, Public Administrations can use the electronic catalogues of the private companies which have presented their credentials in advance according to the specific pre-qualification tender. The electronic market is ruled by article 11 of the regulation.

It is important to remind that the Italian legislation has been taken as an example by the European legislator when deciding to adopt the new directives on public procurement. As a matter of fact, Italy was considered as pioneer across Europe, and greatly influenced the way the European Union later regulated electronic purchase activities in the Public sector with Directives 2004/17/EC and 2004/18/EC.

More recently, Italy has transposed these directives into national legislation by adopting Legislative Decree 12 April 2006, n. 163 which presents again electronic auctions and introduces the 'dynamic purchasing system' which is defined as "a completely electronic process for making commonly used purchases, the characteristics of which, as generally available on the market, meet the requirements of the contracting entity, which is limited in duration and open throughout its validity to any economic operator which satisfies the selection criteria and has submitted an indicative tender that complies with the specification".

A SUCCESS STORY FROM AN ITALIAN MUNICIPALITY

Due to its increasingly strategic role, the procurement process is a perfect example of a process that needs to greatly adopt a collaboration approach by:

- evaluating the role of the buyer as a primary actor in the "cost management" process,

- creating collaboration opportunities between different procurement structures, aggregating volumes, but also redesigning purchasing policies and making more efficient processes,
- moving from a 'just in case' to a 'just in time' model, through an accurate planning of the needs,
- applying a cost strategic management that goes beyond the individual transaction with the supplier: that is, connecting itself to the strategic objectives of the product lines and company business units on everything in the supply chains,
- using the outsourcing model, as an instrument to re-focus on value added activities.

A consortium formed by two Italian municipalities, namely Rimini and Castel San Pietro, promptly responded to the push for change triggered by legislative, organizational and technological evolution of the national public sector, by modernising the management of its own supply chain. They launched a public tender to gain an on-line catalogue and negotiation platform to optimize the cost and the efforts related to the procurement processes. They searched for a solution that fully complied with legislation governing Public Administration sourcing, especially with the above mentioned Presidential Decree 101/2002. In addition, the platform had to support in a fully secure way all phases of the procurement process and was to be delivered according to the ASP (Application Service provisioning) model.

Specific objectives of the two municipalities were to improve efficiency and effectiveness of the overall purchasing process, to enlarge the range of potential suppliers in a widened supplier market view, to develop a more thorough knowledge about products (innovations, prices, quality) and identify candidates and, least but not last, to reduce buying prices.

The Akhela&Thesia platform was chosen as it perfectly addressed the different needs of Local Public Administrations, assuring the principles of fairness, secrecy and transparency critical to Public Administration. Moreover, the platform supports an innovative cooperative/competitive model: each buyer municipality is able to use the system according to a private approach or it can share processes and information with the other buyer municipality.

Featuring personalized graphics and directly accessible from the Municipality's website (Figure 1), the negotiation platform offers qualified suppliers with a full view of all outstanding notices of tender. Moreover, auction participation is made easy by Thesia Support Centre, which offers ongoing procedural and technical assistance to suppliers involved in online negotiations.

FIGURE 1
Rimini e-procurement web portal



The functionalities required by the Local Municipalities were mainly four as shown in Figure 2:

- Supplier Registration,
- Supplier Qualification,
- Electronic Auction,
- Catalogues.

Supplier Registration

This procedure allows for register suppliers of interest. The supplier makes the subscription directly on the procurement portal by filling an on-line Registration Form. The Municipality Administration Department evaluates the registration and the subscription request coming from a supplier and decide to activate the subscription process. A subscription kit is released to the registered suppliers with access codes to access the portal.

FIGURE 2
e-Procurement platform functional architecture



Suppliers Qualification

This procedure supports the creation of Certified Supplier List by means of a dynamic configuration of questionnaires in order to collect data from suppliers. Supplier evaluation and certification is made by product groups and according to pre-defined parameters. Each supplier could be qualified for one single municipality or for both municipalities.

The easiness of subscription and the opportunity to up-date company information in real time are the key benefits for both suppliers and municipalities.

Within six months, the certified suppliers list contained more than 150 companies with a registration time of less than two working days (Figure 3).

FIGURE 3
Certified Suppliers List: product groups

The screenshot shows a web application interface with a navigation menu at the top. The main content area displays a table of 'Classi merceologiche' (Product Groups). The table has two columns: 'Codice' and 'Nome classe'. The 'Nome classe' column contains various categories such as 'Arredi', 'Ristorazione ed alimentazione', 'Ufficio e cancelleria', etc.

Codice	Nome classe
A	Arredi
B	Ristorazione ed alimentazione
C	Ufficio e cancelleria
D	Impianti e Macchinari
E	Attrezzature e materiali vari
F	Prodotti petroliferi
G	Indumenti e accessori
H	Servizi di manutenzione e assistenza
I	Servizi di pubblicazione, editoria
L	Servizi finanziari
M	Servizi logistici e vari

Electronic Auction

The on-line auction provides the means for the Municipality buyer to organize real-time negotiation events at a given date and time with a set of selected suppliers, each participating by placing sequentially lower bids through the Internet (Figure 4). The bid procedures managed by the Akhela&Thesia system are the following:

- Dynamic auctions, allowing both bid up and rebate offers. This kind of auction can be used for purchase of goods and services whose qualitative features are typically extremely standardized and cannot be easily differentiated;
- Closed envelope. This kind of auction allows to guarantee the integrity and the secrecy of every offer until the envelopes are opened.

FIGURE 4
Electronic Auctions

The screenshot shows the 'e-Procurement & Auctions' system interface. The user is logged in as 'Administratore'. The main content area displays a table titled 'Ricerca tipologia d'asta' with the following columns: 'Nome Asta', 'Dettagli', 'Cancella', 'Stato', and 'Lot No.'. The table lists several auctions, including 'TRATTATIVA PRIVATA DEL 16/2/2006', 'SIMULAZIONE 3', 'SIMULAZIONE 2', 'SIMULAZIONE DEL 15/2/2006', 'GARA X SERVIZIO ASSISTENZA TECNICA E MANUTENZIONE 2006-2007', 'SIMULAZIONE 2', 'SIMULAZIONE DI GARA DEL 21/11/2005', 'GARA LOTTO A) CARTA E CARTONCINO USO MANO', 'SIMULAZIONE 2', and 'GARA LOTTO B) CARTA PER FOTOCOPIE E STAMPANTI LASER'. Each row includes a 'Dettagli' icon, a 'Cancella' icon, a 'Stato' icon, and a 'Lot No.' value.

Nome Asta	Dettagli	Cancella	Stato	Lot No.
TRATTATIVA PRIVATA DEL 16/2/2006				665
SIMULAZIONE 3				664
SIMULAZIONE 2				663
SIMULAZIONE DEL 15/2/2006				662
GARA X SERVIZIO ASSISTENZA TECNICA E MANUTENZIONE 2006-2007				661
SIMULAZIONE 2				660
SIMULAZIONE DI GARA DEL 21/11/2005				659
GARA LOTTO A) CARTA E CARTONCINO USO MANO				656
SIMULAZIONE 2				657
GARA LOTTO B) CARTA PER FOTOCOPIE E STAMPANTI LASER				655

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Catalogues

This procedure supports a self-service procurement approach for all the purchases under the European threshold.

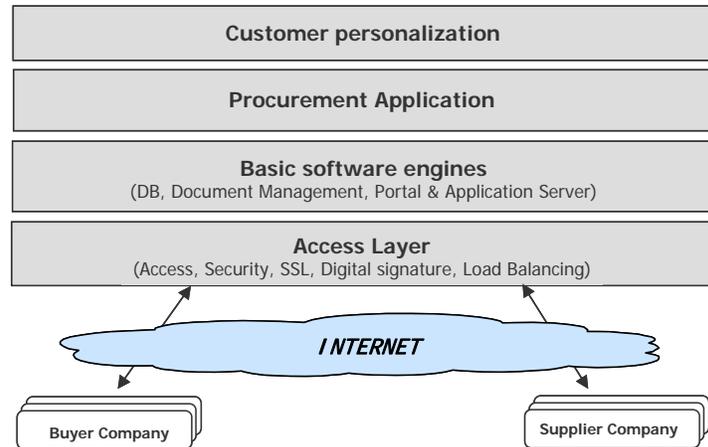
THE E-PROCUREMENT PLATFORM

Four layers compose the technological platform as shown in Figure 5:

- Software applications to support the specific customization;
- Software for the development of the specific procurement applications;
- Basic software to support data and document management;
- Software to support the access to the system through the internet network.

The e-procurement platform is delivered according to the Application Service Provisioning model and all the services are easily accessible by users through a web browser.

FIGURE 5
Technological architecture of e-Procurement platform



RESULTS

Making use of on-line auctions did not require a specific administrative re-organization: a training course has been set up towards municipality-purchasing department's staff and suppliers to get a friendly approach to the web-based tool.

Thanks to the utilization of the platform, the two Municipalities reaped economic benefits besides having enhanced procurement transparency and interaction with suppliers. They enlarged the range of potential suppliers with a widened supplier market view and developed a more thorough knowledge about products (innovations, prices, quality).

In particular, the on-line dynamic auctions have presented excellent results: the highest discount on price-list and a remarkable saving on the overall costs. The municipalities are concretely satisfied with this experience and they are currently working on improving the system by creating a more specific product category's classification.

Some tenders were carried out through the 'multi session' method, consisting of more suppliers joining more on-line auctions simultaneously, with different lots at stake. A considerable time saving

and the guarantee of transparency in the process was therefore achieved. One week is currently the time to manage the full process of a bid (from the invitation letter mailing to the auction running).

The on-line auction system has been used to purchase both goods and services and, in some cases, the savings have been more than 50% of the action's base, without affecting the quality of service/product.

To sum up, the collaboration between the two municipalities, as well as the choice of the ASP delivery model, have significantly reduced the technological investment, while also giving the opportunity to share information and data on suppliers and product categories. However, each municipality run the bids.

Thanks to the obtained results the Municipality of Rimini has been awarded the first prize in the E-gov 2005 competition within the EuroPA conference, which represents the only national event entirely devoted to the world of Local Administrations in Italy.

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