

The Catalan Government Prequalification Strategy for Software Development Suppliers

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1. Motivation

Outsourcing of information systems, services and technologies (ISST) at public administrations has:

- ✓ **Economical importance:** in most countries PA is the biggest ISST consumer
- ✓ **Social interest:** the effectiveness in the management of public money

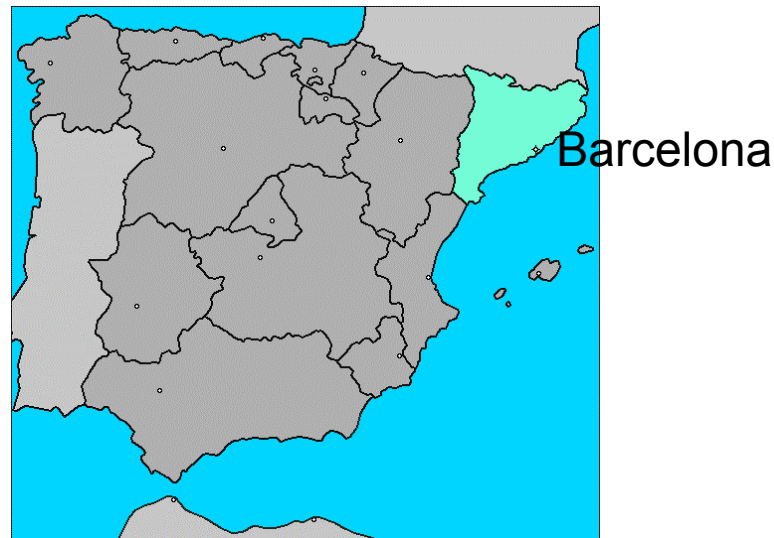
And in our previous work ...

- ➡ We have found a lack of cases describing PA IS outsourcing experiences (and little research in this topic)

1. Motivation

Thus, our motivation is to explain an in-depth case study dealing with ISST outsourcing decisions in a PA:

A mechanism (2004, 2008, 2010) for the prequalification of the suppliers of ISST for the Generalitat de Catalunya



➔ We focus on the prequalification for software development suppliers (from those who develop software projects almost from scratch to those who integrate existing software solutions)

2. The prequalification mechanism

Is named **AMH**: Acord Marc d'Homologació (Homologation Framework Agreement)

AMH established...

...4 main categories of ISST to be purchased (in AMH08 version):

Batch	Budget	Sub-batches	Max. suppliers
A: Software Development Services	132	12	135
B: Consulting Services	13	5	75
C: IT Deployment Services	16	3	30
D: Attendance & Management of IT installations	64	5	20

... & some requirements that the provider that want to be prequalified had to fulfil

2. The prequalification mechanism

After prequalifying providers through AMH:

...every time that a new project is launched...

...the pre-selected providers of the sub-batch must present an offer...

...and the best offer is then selected

The aims of AMH were:

- ➡ To locate previously the best available providers
- ➡ To reduce the adjudication period of resulting projects

AMH must answer at least three (often conflicting) dimensions:

- ✓ **Quality and efficiency goals** (the usual interests of project managers)
- ✓ **Law requirements and PA constraints** (that make compulsory a lot of conditions for the transparency of the process)
- ✓ **Industrial politics** (interested in promoting the ISST sector in Catalonia)

3. The software development (SD) services batch

The Batch A is the most important in terms of economic budget volume, number of providers and number of sub-batches

Sub-batch & budget threshold	Services description	Budget (M€)	Technical knowledge considered
A1.1 > 150.000 A1.2 < 150.000	SD host environments	2 3	DB2; IDMS; COBOL
A2.1 >150.000 A2.2 <150.000	SD in distributed environments	27 8	J2EE; Open source; .Net; Oracle; Adobe; ...
A3.1	SD based on integrated solutions (< 1.000.000) and Geographical Information Systems (GIS), Business Intelligence (BI) and Enterprise Content Management (ECM) solutions (>200.000e)	6	ARCINFO (ESRI); Geomedia (Intergraph); Miramon (CREAF); Map Guide (Autodesk); Smallworld (GE Energy)...
A3.2 < 200.000	SD based on GIS packaged solutions	2	ARCINFO , Geomedia...
A3.3 < 200.000	SD based on BI packaged solutions	2	Microstrategy; SAP-BI ...
A3.4 < 200.000	SD based on ECM packaged solutions	2	Filenet; Documentum...
A4.1 <200.000 A4.2 >200.000	SD based on ERP packaged solutions	6 1	SAP R/3; MS-Dynamics/Navision;
A5.1 <200.000 A5.2 >200.000	Web portals and SD based on Content Management Systems (CMS) solutions	6 1	Vignette; Tridion; MS-CMS

3. The software development (SD) services batch

Suppliers for Batch A are evaluated according to:

- Up to 60 points: professional and technical resources.
 - Up to 40: technical knowledge
 - Up to 10: university studies
 - Up to 5: industry alliances
 - Up to 5 : quality certifications (IEC 9126, CMM, SPICE)
- Up to 25 points: use of contrasted or certified methodologies
- Up to 10 points: security issues (CISA, CISM, CISSP, ISO27001)
- Up to 5 points: Research, Development and Innovation practices and investments.

3. The software development (SD) services batch

Detail of the evaluation criteria for Sub-batch A2.1 (SD in distributed environments)

Professional and technical resources		60
<i>Technical knowledge (TK):</i> The maximum score will be given to the provider with the highest number of professionals of each technical field, up to 300.	40	
J2EE / Open Source	9 points each	
.NET / Oracle / Adobe development tools	6 points each	
BEA development tools	2 points each	
Power builder certified / Cobol development	1 points each	
<i>University studies (technical graduates and postgraduates):</i> Same criteria than TK	10	
<i>Industry alliances:</i> 1 point for each top level industry alliance related to TK	5	
<i>Quality certifications:</i> 5 punts directly for the providers which had developed a project according to the norms: ISO/IEC 9126; SEI/CMM (level 2 or higher) or SPICE .	5	
Methodology: Up to 25 points for using a specific methodology related to each phase of SD		25
Security:		10
<i>ISO27001:</i> 3 points directly for the providers that hold this certification	3	
<i>CISA, CISM, CISSP:</i> The same criteria as in TK.	7	
Research, Development and Innovation		5
<i>Projects developed within well-known Research Centres:</i> 1 point for each research project developed during the last three years, up to 3 points as a maximum.	3	
<i>Ratio of research investment over incomes:</i> 2 points directly if it is greater than 4.5%; 1 point directly if it is greater than 3%.	2	

4. Rationale behind the design of Batch A

Several reasons explain why Batch A is defined this way:

- ➡ Most of them must be understood from the perspective of a public administration: they have its roots in a political trend or decision

Budget threshold:

- ✓ Only exist in Batch A.
- ✓ Why?
 - ✓ A *political* reason: Generalitat is interested in giving opportunities to catalan SME (in addition to the big companies -catalan, spanish or multinational- stablished at Catalonia)

4. Rationale behind the design of Batch A

Subcontracting constraints:

- ✓ Only the companies included in the sub-batches on the upper amount threshold are allowed to subcontract an assigned project
- ✓ The subcontract only can reach 30% of the total amount
- ✓ The subcontracted company must belong to the equivalent sub-batch in the lower amount segment
- ✓ Why?
 - ✓ A *political* reason: to reinforce the logic of the amount limits (budget threshold) of a sub-batch
 - ✓ A *technical* reason: to limit the long chains of subcontracting that have appeared in the past

4. Rationale behind the design of Batch A

Certified skills & methodologies:

- ✓ The prequalified providers must have human resources certified in:
 - ✓ General technical skills and methodologies
 - ✓ Product-dependent skills
 - ✓ University studies

- ✓ Why?
 - ✓ A *political* reason: to push SME to enroll certified people or to form its current human resources
 - ✓ A *technical* reason: to increase the expected quality of the delivered service

5. Some preliminary results

AMH'08 is just fifteen months old and **not too many projects have been finished** (no data about results is available).

But:

The data about **the origin of the company** of the selected providers, consolidates:

- ✓ A model where local industry has a very relevant paper
- ✓ A near-sourcing strategy based on SMEs but also in big companies

The **business income of the providers** has experienced:

- ✓ Positive impact: After being prequalified some providers have increased their business among other customers (from public & private sector)
- ✓ Negative impact: Those providers that were not prequalified, lost business chances at the Generalitat but also within other public administrations

6. Conclusions & future work

AMH tries to reflect the technical and political objectives of Generalitat:

- ✓ Quality of the selected providers,
- ✓ Promotion of technical issues,
- ✓ Support to local industry.

AMH is a mechanism that can be evolved according to emerging needs and detected problems (in fact its third version is coming)

In the future, as data is captured on the perceived or estimated quality of service, additional more detailed analyses will be possible to show the effects of the AMH

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Thanks for your attention

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