CODICE2

MINISTERIO
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Implementation Guide

CODICE2

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CODICE2

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1 Introduction

1.1 Scope and objectives of the project

CODICE2 is an evolution of the CODICE document model used to reach the challenge of implementing electronic procurement projects. The first version of CODICE has enabled the creation of the eTendering Platform in Spain as well as exchanging notices and notifications between all different actors involved in electronic procurement processes. This new version of CODICE is designed to go one step further, laying the groundwork in order to allow the development of more electronic procurement processes such as admission and exclusion of candidates or evaluation and award of tenders.

1.2 Conventions

The terms (acronyms, words or expressions) in italics are defined in the Glossary at the end of this report.

The acronyms in brackets ("[n]") are references. A list of documents, books, web addresses, etc. build up the bibliography that appears in the References section at the end of this report.

1.3 Scope and content

This document is divided into two main sections:

- Definition of CODICE 2.0 artifacts

- Using the components of CODICE 2.0

1.4 Target Audience

System analysts and designers of components and documents that need to debug and / or extend both the library of components or the assembled documents.

IT technology consultants, analysts, designers and programmers who need to analyze, design and deploy new devices, information systems and applications based on the results of the CODICE project.

2 Modifications included in CODICE 2.0 vs 1.06

In 2006 the Dirección General del Patrimonio del Estado developed a draft definition of the document models for electronic tendering. This project was named CODICE and one of its objectives was to reuse international experience in terms of standards development for electronic documents to create a panEuropean vocabulary for processes related to procurement in the public sector. To achieve this goal, apart from an analysis of relevant European directives, the most advanced e-commerce vocabularies in XML format were analyzed:

- Models of documents created within the UN / CEFACT by the group TBG6.

- Models of documents as defined in UBL 2.0 library.

With this approach, at the end of 2006, a first set of documents for business processes based on electronic tendering international standards was obtained. These documents were consolidated into version 1.06, published in the Spanish eTendering Platform and were the base of the work started on 2007 within the CEN / ISSS BII for public procurement.

The goal of CODICE, as set by the Dirección General del Patrimonio del Estado, has been to leverage it as an international standard to:

- Enhance interoperability for electronic public procurement processes in Europe.

- Facilitate maintenance of the standard through the collaboration with expert organizations in this field.

Since its first publication in 2006, CODICE has been adopted by various agencies, both public and private, when creating electronic tendering systems. This adoption by third parties requires a support and to ensure an evolution of the standard, allowing collection of new use cases and resolution of any issues that may arise during its deployment in different contexts of use.

Therefore, new requirements arising from the adoption of this standard and the will of the Dirección General del Patrimonio del Estado of leveraging CODICE to an international stage integrating it in standardization bodies such as CEN and UBL have created a series of requirements that have forced an evolution to reflect new requirements of these new agents.

Main contributions of new requirements have emerged from the following organizations:

- Ministries and agencies of the Spanish Administration that have deployed electronic tendering systems

- Governments of Autonomous Communities that have implemented their electronic tendering systems using CODICE such as the Catalan Government Generalitat de Catalunya

- Official Journals such as the Spanish BOE

- The Dirección General del Tesoro y Política Financiera and insurance companies

- CEN WS BII

- OASIS UBL Technical Committee

- Dirección General del Patrimonio del Estado of the Ministry of Economy and Finance

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Main differences between CODICE 2.0 and its predecessor 1.06 are:

- Adding new business processes has required the definition of new electronic documents, such as the Tender Envelope.This envelope should allow the submittal of electronic tenders and thus the facilitation of processes such as tender or tenderer qualification encryption.

- Some old document models have been rejected in CODICE 2.0 due to the difficulty to get them implemented in electronic procurement systems and / or due to the impossibility of automated processing. These documents are AppealNotification, ClarifyingRequest or ContractDocumentsRequest in 1.06.

- Alignment with UBL has forced re-use of UBL components to use similar design patterns. This is especially notable in the component ProcuringProject in CODICE 1.06. It has changed its name to ProcurementProject and its structure to define deliverables. Instead of TenderingDeliverable element to identify them, a new component called RequestForTenderLine has been used in order to align CODICE documents with the rest of UBL documents.

- In CODICE 2.0, lots of projects can be described using the Request For Tender Line component. Each Request For Tender Line may contain Sub Request For Tender Lines, which enables description of the breakdown of the deliverables. This functionality was not possible in CODICE 1.06.

- Lot structure has changed. In CODICE 2.0 lot structure is separated from the main class Procurement Project where the overall definition of the contract is set. Procurement Project Lot can be repeated at the root level in order to specify different lots of the contract in documents such as the Contract Notice or the Call For Tenders. CODICE 1.06 described its lots using SubProcuring Project components within each Procuring Project.

- Tendering Terms and Tendering Process have rearranged their contents by relocating some of its components. Tendering Process class has been reserved to accommodate classes related to the description of the process, with elements such as periods and dates governing the procedure, opening events of tenders, conditions for conducting auctions and other specific elements for different procedures.

- The way to describe requirements for bidders to participate in the procedure has been modified. CODICE 1.06 had two classes (Required Qualification and Required Business Profile) to describe these requirements. In CODICE 2.0 there is only a single class called Required Tenderer Qualification which consolidates information from both classes and allows a better description of the criteria for technical and financial evaluation as well as business classification requirements and other exclusion criteria.

- CODICE 2.0 has assembled all the elements related to award in a single class within Tendering Terms called Awarding Terms. These elements are Awarding Criteria, which is slightly different from Awarding Criteria in CODICE 1.06.

- CODICE 1.06 Declaration document has expanded its scope and has become the Tenderer Qualification in CODICE 2.0, where the bidder can not only declare its own status –as in the former Declaration document–, but also provide documents to prove their technical and economic capacities.

- Contract Award Notice has changed significantly in CODICE 2.0. CODICE 1.06 defined a Tender Result element, which identified the amount of the winning bid, the contractor and the information from the original lot. In CODICE 2.0, the original contract can be identified at root level, and within Tender Result information about the awarding is compiled in the

Tendered Awarded Project. This new structure allows to define more information and to facilitate comparison between a call for tenders and tender information.

- Invitation To Tender has not been modeled in CODICE 2.0. Call For Tenders document can be sent from contracting authority to tenderers to cover the invitation process instead. In fact, Invitation To Tender in CODICE 1.06 was almost identical to the Contract Documents.

- Guarantee business process in CODICE 2.0 is more complex than the one defined in CODICE 1.06. More documents related to the management of guarantees have been generated. While in CODICE 1.06 there was a single Guarantee document, in CODICE 2.0 there are additional GuaranteeCertificate and Guarantee Certificate Request documents.

- Tender document in CODICE 2.0 has been assimilated to Quotation in UBL. Unlike CODICE 1.06, CODICE 2.0 Tender document is structured using Tendered Project components. Each Tendered Project is a response to a Procurement Project Lot, so that awards are given on a lot-by-lot basis. Each Tendered Project contains Tender Line classes as it was in CODICE 1.06, allowing matching the Request For Tender Lines with the Call for Tenders. In addition to the Tender Line, CODICE 2.0 Tendered Project allows the definition of responses to Awarding Criteria, explicit statements from the tenderer to explicity answer award criteria defined in a call for tenders.

All detailed differences between version 1.06 and version 2.0 can be found on document DGPE_CODICE2.0_Transformacion-1.06.ods.

3 Use of CODICE 2.0 documents and components

This section details how to use some components and data types from CODICE 2.0 documents in different processes related to electronic procurement.

3.1 Generation of CODICE 2.0 components and documents

Any CODICE 2.0 document has a component structure based on the UBL 2.0 standard. This component architecture is detailed in Section 4 of this document and within specific documentation of the UBL standard.

Basing electronic documents in component architecture facilitates the reuse of code application to create common information components. For example, ContractingParty component is a complex component used to describe the contracting authority. This component is used in various CODICE documents, such as the prior information notice, contract notice or call for tenders. Reusing the same ContractingParty component for different documents, which must refer to the same contracting authority, makes it easier for developers. Moreover, it reduces the chance of introducing interpretation errors by individual users.

3.2 Common data elements in every CODICE documents

CODICE documents can be divided into the following main sections:

3.2.1 Document metadata

Every CODICE 2.0 document has a number of properties or BBIE (Basic Business Information Entity) in its root. This enables the identification of the context in which this document is being exchanged. CODICE does not use such items but they have been incorporated as part of the alignment with the standard UBL 2.1. These elements will identify the version of UBL and the customization used. The elements are the following:

- o **UBLVersionID:** Identifies the UBL schema version used.

- o **Customization:** It identifies a subset of UBL defined by a user group such as CEN BII.

- o **ProfileID:** Each customization can be used within different profiles. Profile ID lets identify within which profile documents are exchanged. For example, when exchanging documents with the Spanish eTendering Platform, profile identifies code lists and validation rules being used to validate documents.

In addition to these generic elements, there are other header metadata used to uniquely identify the XML instance. These elements are:

- o **ID:** Identifier assigned by the sender to the XML instance.

- o **CopyIndicator:** It indicates whether the document is a copy (true) or not (false). CODICE has taken as a convention that if no present, document is original.

- o **UUID:** Identifies the document by using a universal unique identifier, generated automatically.

- o **IssueDate:** Date of issue of the document.

- o **IssueTime:** Time of issue of the document.

- o **ContractFolderID:** This item can be found only in electronic tendering documents. It refers to the file number that links together all the documents in the tendering process (notice, call for tenders, offer, etc.).

```
<cbc:UBLVersionID> 2.1 </cbc:UBLVersionID>
 <cbc:CustomizationID> CODICE 2.0 </cbc:CustomizationID>
<cbc:ProfileID> CiP 1.4 </ cbc: Profile>
<cbc:ID> 0000001128050 </ cbc: ID>
<cbc:UUID> 2010-145818 </ cbc: UUID>
<cbc:ContractFolderID> 2009/C1/SUM/009 </ cbc: ContractFolderID>
<cbc:IssueDate>01/15/2010  +01:00 </ cbc: IssueDate>
<cbc:IssueTime> 09:16:32.516 +01:00 </ cbc: IssueTime>
```

3.2.2 Parties involved.

Every document has references to people or bodies. Each party involved has a role within the business process. Most typical parties in CODICE documents are:

- o **ContractingParty:** It is used to inform about a contracting authority who is acting as a buyer in the tendering process.

- o **OriginatorCustomerParty:** There are cases where the contracting authority does not match with the final beneficiary of the contract; one of these cases is central purchasing. In these cases, this component is used to indicate the final beneficiary.

- o **QualifyingParty:** It is an extension of the component party that facilitates extended data of a company. It is used in a qualification document (administrative documentation) to allow bidders to provide information enabling contracting authority to assess their capacity and solvency and admit or reject them in a tendering process.

- o **TendererParty:** It is used to inform about the bidder in the tendering process.

- o **WinningParty:** It is used to specify a winner of the tendering process in award notices, as well as in notifications to contractors.

- o **SenderParty:** It is used to determine the party sending the notification.

- o **ReceiverParty:** It is used to indicate the recipient of the electronic document.

3.2.3 Specific elements of the document

Each CODICE document has other properties and specific components for specific data reporting requirements in different parts of the bidding process. These additional properties are explained in detail in sections below.

3.3 Preparation of prior information notice, contract notice and call for tenders

CODICE structure for documents prior information notice, contract notice and call for tenders is very similar. Main difference is the use of the components in each case, as a prior information notice usually contains less information than a contract notice, and this one less than a call for tenders.

Document models do not impose major limitations since most items are optional. However, customizations can set mandatory elements besides those defined in CODICE. For example, Spanish eTendering Platform performs validations on data elements for this document models depending on the type of procedure.

3.3.1 Components

These documents are structured into four major blocks in addition to the general information indicated in section 3.2

- o **Procurement Project:** it is used to detail the contract, budget information, information on performance conditions, etc.

- o **Procurement Project Lot:** In contracts with lots, this component includes a Procurement Project component to identify the object to be purchased with this lot and a Tendering Terms component to specify conditions for bidding to this lot.

- o **Tendering Terms:** it is a complex component that allows to report all conditions that affect the bidding, such as conditions required for bidders, conditions governing the awarding, or instructions for preparing tender documents.

- o **Tendering Process:** It specifies the particularities of the bidding process.

3.3.2 Budgetary information contained in a call for tenders

Call For Tenders contains the budget for the purchase, and may also detail annual budget within the component cac: ProcurementProject / cac: BudgetAmount.

Main components that define the budget are:

- **Budget Amount:** Component that allows reporting amounts budgeted for the contract. All CODICE amounts have Amount type. Amount Type has a coded attribute to express its currency. This attribute is called currencyID and it is mandatory in any amount.

  Budget Amount contains all general information about the budget and it is specified according to the following components:

  - o **EstimatedOverallContractAmount:** Estimated contract value is calculated as described in accordance with art. 9 of Directive 2004/18/EC.

  - o **TotalAmount:** Total budget including net amount plus taxes and other costs associated with the project.

  - o **TaxExclusiveAmount:** Net budget (without taxes) of the project.

o **MinimumAmount:** Minimum budget with taxes required for project implementation.

o **MonetaryScope:** Text description about the budget.

o **AverageSubsequentContractAmount:** In a framework agreement or in a dynamic purchasing system, this element reports the estimated average amount to be awarded for contracts based on a framework agreement or on a dynamic system that is established through the tendering process.

o **ApplicableTaxCategory:** Taxes applicable to the project. This complex element allows a contracting authority to specify tax categories that can be applied to tenders. In order to specify applicable tax categories following elements should be used:

- **ID:** Identifier of applicable tax category. A code from the list defined in the CEN BII, which is found in http://www.cen.eu/cwa/bii/specs/Tools/resources/cl/TaxCategoryID.gc , should be used.

- **TaxScheme / ID:** Besides category, applicable tax scheme must be specified. As in the previous case, there is a list of codes defined by the CEN BII, which can be found in http://www.cen.eu/cwa/bii/specs/Tools/Resources/cl/TaxSchemeID.gc

- **Budget Account Line:** Budget breakdown in applications and annual allocations:

o **ID:** Sequential number of a line budget item.

o **TotalAmount:** amount corresponding to a budget allocation annuity referenced on this line. A procurement project may be associated with different budget accounts, so it is necessary to identify budget accounts and their associated amounts with each account.

o **BudgetAccount:** This complex component identifies a budget account. Each line must contain a single budget account.

- **ID:** Identifier of a budget account. In CODICE this is the string that contains the three identifiers for budget allocation in Spain: organic, functional and economic.

- **BudgetYearNumeric:** Attribute to identify year of the budget.

- **RequiredClassificationScheme:** Classification of budget account, used to define the budget account by its different types of organic, functional and economic classification. This element is defined as a classification scheme to facilitate the integration of the tendering process with downstream processes such as accounting or accounting control.

3.3.2.1 Example of budget amount

BudgetAmount is used to specify amounts of a budget structure:

```
<cac:BudgetAmount>
<cbc:EstimatedOverallContractAmount                                    currencyID="EUR">170000</cbc:
EstimatedOverallContractAmount>
<cbc:TotalAmount currencyID="EUR">85000</ cbc:TotalAmount>
```

```
<cbc:TaxExclusiveAmount currencyID="EUR">80000</cbc:TaxExclusiveAmount>
<cac:ApplicableTaxCategory>
<cbc:ID listURI="http://www.cen.eu/cwa/bii/specs/Tools/resources/cl/TaxCategoryID.gc">S</cbc:ID>
<cac:TaxScheme>
<cbc:ID listURI="http://www.cen.eu/cwa/bii/specs/Tools/resources/cl/TaxSchemeID.gc">VAT</cbc: ID>
</cac:TaxScheme>
</cac:ApplicableTaxCategory>
</cac:BudgetAmount>
```

In this example estimated contract value is 170,000 Euros. There is a maximum total budget (TotalAmount) that includes taxes and a maximum budget without taxes (TaxExclusiveAmount). Note that all amounts require attribute currency with an appropriate currency code.

The sample specifies taxes that will be applied. Code lists defined and maintained by OASIS in order to specify tax categories and tax schemes are used. Its URI must be declared in its element's listURI attribute.

3.3.2.2 Example of budget accounts

For each project different budget lines can be specified whenever budget splits in different years. When performing a multi-year project, a BudgetAccountLine instance may be created for each annuity, establishing the amount in TotalAmount and defining budget account with BudgetAccount.

BudgetAccount component describes a budget allocation. ID must set the whole budget allocation number, which may be repeated in the element ClassificationCategory split into their different classifications (organic, functional and economic in Spain) and their value.

```
<cac:BudgetAccountLine>
 <cbc:ID>1</cbc:ID>
 <cbc:TotalAmount currencyID="EUR">10000000</cbc:TotalAmount>
 <cac:BudgetAccount>
   <cbc:ID>16.01.134M.620.03 </cbc:ID>
   <cbc:BudgetYearNumeric>2010</cbc:BudgetYearNumeric>
  </cac:BudgetAccount>
</cac:BudgetAccountLine>
```

Example 2 Budget account information

3.3.3 Information about deliverables, requested products and services

Electronic call for tenders can specify what deliverables (products or services) should be offered by bidders. This information is essential for bidders to indicate type and prices of products and services into their offerings. To this end, RequestForTenderLine component within ProcurementProject should be used.

- **Request For Tender Line:** This complex component is used to identify and define project deliverables. Tenders submitted by tenderers should address deliverables specified in the call for tenders.

  Each repetition of this element in a procurement project or in a lot is used to identify a single product or service. A contracting authority can set the following data in order to identify goods, works or services to be purchased:

  o **ID:** Identifies a deliverable line.

---

o **UUID:** Uniquely identifies this line by a UUID.

o **Note:** Text description of a deliverable.

o **Quantity:** Quantity requested for this deliverable.

o **MinimumQuantity:** Minimum quantity requested.

o **MaximumQuantity:** Maximum quantity requested.

o **MaximumTaxExclusiveAmount:** Maximum amount for this line, excluding taxes. It should be used when tender evaluation is based on lump sum.

o **MaximumTaxInclusiveAmount:** Maximum amount for this line, including taxes. It should be used when tender evaluation is based on lump sum.

o **DocumentReference:** it allows the attachment or the reference of additional documentation on a deliverable.

o **DeliveryPeriod:** Delivery period for this deliverable.

o **RequiredItemLocationQuantity:** It specifies item unit prices depending on the location where they are consumed or on the ordered quantities.

This element must be defined when awarding by unit prices, and wanting to set a maximum price per unit. Some repetitions of this element can be defined by setting prices depending on quantities served or on delivery locations.

Most important elements of this component when specifying unit prices are:

- **MinimumQuantity:** It can be used to specify a minimum quantity of items to be ordered from which price applies.

- **MaximumQuantity:** It can be used to specify a maximum quantity of items to be ordered from which price applies.

- **ApplicableTerritoryAddress:** It specifies area or place of performance or delivery in which price applies. A country or a subentity can be specified.

- **Price:** Unit price of a product or service applicable in the range of quantities and in a specified territory.

o **WarrantyValidityPeriod:** Information concerning to a warranty period required for this deliverable.

o **Item:** detailed data item (product or service) referred in this deliverable. The Item component belongs to the common library UBL 2.1.It is used to specify a particular product or service or, as in this case, to identify properties of a requested product or service.

Call for tenders do not usually identify a specific brand and model for an item. Identifiers or codes such as EAN should not be used, so the elements recommended to identify products or services in this case are:

- **Description:** Text description of a product or service.

- **Name:** Name of a product or service.

- **AdditionalInformation:** Specification of a product and / or service information.

- **ItemSpecificationDocumentReference:** Additional unstructured information through an attached document that describes in detail a requested product and / or service.

- **CommodityClassification:** Identification of the procurement classification of a product or service, usually using a CPV code.

- **AdditionalItemProperty:** Repeatable component that defines properties, or specifications for a product or service to be acquired.

  o **SubRequestForTenderLine:** This component allows the breakdown of a deliverable in different parts, so that a product or service can be detailed or disaggregate in parts.

3.3.3.1 Example of lump sum deliverable

When prices are lump sum, each deliverable must set monetary values on elements by using MaximumTaxInclusiveAmount and MaximumTaxExclusiveAmount.

```
<cac:RequestForTenderLine>
<cbc:ID>1</cbc:ID>
<cbc:Quantity>1</cbc:Quantity>
<cbc:MaximumTaxExclusiveAmount currencyID="EUR">12000</cbc:MaximumTaxExclusiveAmount>
<cbc:MaximumTaxInclusiveAmount currencyID="EUR">14000</cbc:MaximumTaxInclusiveAmount>
 <cac:Item>
<cbc:Description>Servicio de limpieza de planta</cbc:Description>
<cbc:Name> Cleaning </cbc:Name>
<cac:CommodityClassification>
<cbc:ItemClassificationCode    listURI="http://contrataciondelestado.es/codice/cl/1.04/CPV2007-1.04.gc"
listVersionID="2007"> 45259000</cbc:ItemClassificationCode>
</cac:CommodityClassification>
</cac:Item>
</cac:RequestForTenderLine>
```

Example 3 Lump sum line item deliverable

3.3.3.2 Example of unit price deliverable

In unit price based awarding contracts, contracting authorities may define a quantity of goods and a maximum amount at line level. However, they must also identify the maximum per unit using the component Price within PriceAmount in RequiredItemLocationQuantity. This price value will be used to compare call for tender's proposed amounts with amounts specified in the tender.

To define different unit prices for different locations or different quantities the element RequiredItemLocationQuantity has to be repeated as many times as needed.

```
<cac:RequestForTenderLine>
<cbc:ID> 2 </cbc:ID>
<cbc:Quantity> 1000 </ cbc: Quantity>
<cbc:MaximumTaxExclusiveAmount currencyID="EUR">6000</cbc:MaximumTaxExclusiveAmount>
<cbc:MaximumTaxInclusiveAmount currencyID="EUR">7000</cbc:MaximumTaxInclusiveAmount>
<cac:RequiredItemLocationQuantity>
<cac:Price>
```

```
<cbc:PriceAmount currencyID=" EUR "> 6 </cbc:PriceAmount>
</cac:Price>
</cac:RequiredItemLocationQuantity>
<cac:Item>
<cbc:Name> Notebook </cbc:Name>
<cac:CommodityClassification>
<cbc:ItemClassificationCode
listURI="http://contrataciondelestado.es/codice/cl/1.04/CPV2007-1.04.gc"
listVersionID="2007">22816100</cbc:ItemClassificationCode>
</cac:CommodityClassification>
<cac:AdditionalItemProperty>
<cbc:Name> Pages </cbc:Name>
 <cbc:ValueQuantity> 50 </cbc:ValueQuantity>
</cac:AdditionalItemProperty>
<cac:AdditionalItemProperty>
<cbc:Name> Size </cbc:Name>
<cbc:Value> A4 </cbc:Value>
</cac:AdditionalItemProperty>
</cac:Item>
</cac:RequestForTenderLine>
```

Example 4 detail of deliverables with unit prices

3.3.4 Required classification, solvency criteria and requirements for bidders.

TenderingTerms class included in a call for tenders should include conditions for participation in the tendering process, specified as admission and exclusion criteria in the TendererQualificationRequest component.

TendererQualificationRequest contains general information about requirements for bidders, as well as technical evaluation criteria and economic solvency and capacity requirements.

With this structure, a contracting authority may detail precisely requirements for bidders to the tendering process.

See details about TendererQualificationRequest:

A. General information on conditions to be met by participants

- **LegalForm:** Text description of legal form required for economic operators.

- **PersonalSituation:** Text description of personal situation required for economic operator.

- **OperatingYearsQuantity:** Years of experience required to economic operators.

- **EmployeeQuantity:** Minimum number of employees who are required to have an economic operator.

- **Description:** Text description of information needed for evaluation if requirements are met.

B. Specific requirements and statements required to participate in a bidding process

Contracting authority may require tenderers to carry out a number of responsible statements about its ability to contract with public administration such as they are not in hiring ban. They may also impose specific requirements for participation as in the case of contracts reserved for special employment centers, or sheltered employment programs.

SpecificTendererRequirement component allows you to specify these kinds of requirements.

- **SpecificTendererRequirement:** Each specific requirement can detail the following items:

  o **Name:** Descriptive name of a specific requirement for a bidder.

  o **RequirementTypeCode:** coded value that describes a specific requirement for the bidder, such as capacity to act, or not fall in prohibition to contract.

  o **Description:** Text describing this requirement.

  o **SuggestedEvidence:** Documentation of proof (evidence) that a bidder can use to demonstrate that he fulfills this requirement. This complex component is used to give the bidder information on how he may accreditate the requirement.

    It usually carries the following data:

    ▪ **EvidenceTypeCode:** Description of type of evidence, coded.

    ▪ **Name:** Descriptive name of the evidence that an economic operator should provide

C. Required business classification

Contracting authorities may require companies that wish to participate in a tendering process. Therefore, they can have a rating issued by a competent authority assessing their economic and financial capabilities.

- **RequiredBusinessClassificationScheme:** Rating required for bidders.

Data elements used when describing business classifications. Values for these elements must be defined at application level:

  o **ID:** Each country may use its own classification scheme. There could be changes in the schemes due to legislative changes, so this element must be filled in to allow the interpretation of the data in the component. By the time of publication of this document, eTendering Platform in Spain is using "Clasificacion". It indicates that it is the Spanish business classification scheme.

  o **Name:** Name of classification scheme. By the time of publication of this document, the eTendering Platform in Spain sets this element to "RequiredBusinessProfileCode" indicating that this classification scheme refers to a classification required for businesses.

  o **AgencyName:** Name of responsible agency for the classification system. By the time of publication of this document, it is set to "Dirección General del Patrimonio del Estado".

  o **VersionID:** Version that identifies the classification scheme. It is used to facilitate the versioning of classification schemes, regardless of the structure of the document. By the time of publication of this document version id should be "2007"

  o **URI:** URI where you can find the list of codes that can be used for this classification scheme. Currently the following URL should be used: http://contrataciondelestado.es/codice/cl/1.04/RequiredBusinessProfileCode-1.04.gc.

- o **SchemeURI:** URI of the classification scheme currently used urn:dgpe:names:draft:codice:codelist:gc:RequiredBusinessProfileCode

- o **Language:** Language of the classification system. At this time, eTendering Platform is using "Spanish"

- o **ClassificationCategory:** Category classification. This complex component can be repeated several times, each one indicating a business classification value required by the contracting authority for the project. Among the elements of such complex components:

  - ▪ **Name:** Name of business classification. Currently using "Element RequiredBusinessProfileCode"

  - ▪ **CodeValue:** Value of business classification. CODICE uses a single business classification identified as the concatenation of the Group, Subgroup and Category established in business classification system in Spain.

  - ▪ **Description:** Text description of the value of business classification.

D. <u>Solvency Criteria</u>

- • **Technical evaluation criteria** Criteria for evaluating technical creditworthiness that determines the ability of an economic operator to participate in a tendering process.

  - o **EvaluationCriteriaTypeCode:** Code that defines criterion of creditworthiness. In this case, it is either a technical or professional criterion.
    Code list governing the technical evaluation criteria is also used when defining the capabilities of economic operators in the document Tenderer Qualification, providing a way to compare between evaluation criteria in the call for tenders and capacities declared in the tenderer qualification.

  - o **Description:** Text description of the technical solvency criterion .

  - o **ThresholdAmount:** Threshold value of the criterion when it comes to an amount, such as the value of turnover.

  - o **ThresholdQuantity:** Threshold value of the criterion when it is not an amount, such as the number of senior engineers working in the project.

  - o **ExpressionCode:** Code defining the mathematical expression that will evaluate this evaluation criterion. It refers to how to treat the threshold value, if maximum or minimum.

  - o **DurationPeriod:** Duration or period of time of criterion applicability . Although it is a period, it is better to use DurationMeasure indicating the time during which the criterion must be maintained. A text description can also be used instead of a fixed start and end dates.

  - o **SuggestedEvidence:** Document evidence that a tenderer can use to accreditate this evaluation criterion. This complex component is used to give to bidders information on how he can demonstrate technical solvency criterion.
    The most relevant elements are the following:

    - ▪ **EvidenceTypeCode:** Description of the type of evidence, coded.

- **Name:** Descriptive name of an evidence that an economic operator should provide to demonstrate the fulfillment of this evaluation criterion.

- **Criteria for economic and financial capacity:** economic and financial criteria required for an economic operador assessing their financial solvency and determining their ability to participate in the tender.

  o **EvaluationCriteriaTypeCode:** Code defining the criterion of creditworthiness. In this case, it is a criterion of financial and economic solvency.

    Code list governing the economic evaluation criterion in a Call For Tenders should also be used by economic operator in Tenderer Qualification document to indicate its financial capacity. It will facilitate the comparison of evaluation criteria against capacities declared by the tenderer.

  o **Description:** Text description of the economic solvency criterion .

  o **ThresholdAmount:** Threshold value of the criterion when it comes to an amount, such as the value of turnover.

  o **ThresholdQuantity:** Threshold value of the criterion when it is not an amount, such as the number of senior engineers in a project.

  o **ExpressionCode:** Code defining the mathematical expression that will evaluate the evaluation criteria. It refers to how to treat the threshold value, if maximum or minimum.

  o **DurationPeriod:** Duration or period of time of the criterion applicability. Although it is a period, it is better to use DurationMeasure indicating the time during which the criterion must be maintained. A text description can also be used instead of a fixed start and end dates.

  o **SuggestedEvidence:** Evidence that a tenderer can use to accreditate this evaluation criterion. This complex component is used to give the bidder information on how he can demonstrate the financial solvency criterion.

    They have the following elements:

    - **EvidenceTypeCode:** Description of type of evidence, coded.

    - **Name:** Descriptive name of evidence that the economic operator should provide to accreditate evaluation criteria.

3.3.4.1 Example of requirements for bidders

This example establishes criteria for admission and exclusion of bidders based on business classification. It describes a minimum corporate rating and a series of additional selection criteria that are defined using the code list in http://contrataciondelestado.es/codice/cl/ 2.0/DeclarationTypeCode-2.0.gc .

If there is no request for business classification, criteria for technical and economic creditworhiness should be defined.

```
<cac:TendererQualificationRequest>
    <cbc:Description >Described in Administrative clauses
```

```
        </cbc:Description>
      <cac:RequiredBusinessClassificationScheme>
          <cbc:ID >Clasificacion</cbc:ID>
          <cbc:Name >RequiredBusinessProfileCode</cbc:Name>
          <cbc:AgencyName >Dirección General del Patrimonio del Estado</cbc:AgencyName>
          <cbc:VersionID >2007</cbc:VersionID>
        <cbc:URI>http://contrataciondelestado.es/codice/cl/1.04/RequiredBusinessProfileCode-
1.04.gc</cbc:URI>
        <cbc:SchemeURI>urn:dgpe:names:draft:codice:codelist:gc:RequiredBusinessProfileCode
          </cbc:SchemeURI>
        <cbc:LanguageID>Español</cbc:LanguageID>
      <cac:ClassificationCategory>
          <cbc:Name>Elemento RequiredBusinessProfileCode</cbc:Name>
          <cbc:CodeValue>O2d</cbc:CodeValue>
          <cbc:Description>Conservación y mantenimiento de carreteras, pistas, autopistas,
autovías, calzadas y vías férreas. (A partir de 600.000 Euros)</cbc:Description>
        </cac:ClassificationCategory>
      </cac:RequiredBusinessClassificationScheme>
    <cac:SpecificTendererRequirement>
      <cbc:RequirementTypeCode languageID="es"
        listURI="http://contrataciondelestado.es/codice/cl/2.0/DeclarationTypeCode-2.0.gc"
listVersionID="2.0">5</cbc:RequirementTypeCode>
    </cac:SpecificTendererRequirement>
    <cac:SpecificTendererRequirement>
      <cbc:RequirementTypeCode languageID="es"
        listURI="http://contrataciondelestado.es/codice/cl/2.0/DeclarationTypeCode-2.0.gc"
listVersionID="2.0">4</cbc:RequirementTypeCode>
    </cac:SpecificTendererRequirement>
    <cac:SpecificTendererRequirement>
      <cbc:RequirementTypeCode languageID="es"
        listURI="http://contrataciondelestado.es/codice/cl/2.0/DeclarationTypeCode-2.0.gc"
listVersionID="2.0">3</cbc:RequirementTypeCode>
    </cac:SpecificTendererRequirement>
    <cac:SpecificTendererRequirement>
      <cbc:RequirementTypeCode languageID="es"
        listURI="http://contrataciondelestado.es/codice/cl/2.0/DeclarationTypeCode-2.0.gc"
listVersionID="2.0">1</cbc:RequirementTypeCode>
    </cac:SpecificTendererRequirement>
    <cac:SpecificTendererRequirement>
      <cbc:RequirementTypeCode languageID="es"
        listURI="http://contrataciondelestado.es/codice/cl/2.0/DeclarationTypeCode-2.0.gc"
listVersionID="2.0">2</cbc:RequirementTypeCode>
    </cac:SpecificTendererRequirement>
  </cac:TendererQualificationRequest>
```

Example 5 Selection criteria for bidders

3.3.5 Award criteria

Tendering Process component has two relevant codes to allow evaluating received tenders and its award. They are the following:

- o **AwardingMethodTypeCode** that establishes whether a contract is awarded by a single criterion, the price, or by multiple criteria and

- o **PriceEvaluationTypeCode** that determines whether the contract will be awarded by unit prices or lump sums.

Depending on the value of these codes, structure of the call for tenders will vary when determining what information is being required in Tenders.

PriceEvaluationTypeCode determines how to set maximum prices in a deliverable (Request For Tender Line). Awarding method specifies whether it is necessary to identify criteria to be taken into account when awarding the contract (Awarding Criteria) other from the price:

- **CASE 1: If method of awarding is price (AwardingMethodTypeCode = "single criteria") and lump sum awards**

Call for tenders will indicate the base budget for competition, and the maximum for each of the deliverables by using the elements MaximumTaxInclusiveAmount and MaximumTaxExclusiveAmount. See example in 3.3.3.1

- **CASE 2: If method of awarding is price (AwardingMethodTypeCode = "single criteria") and allocated by unit prices**

Call for tenders will indicate the base budget for competition, and a maximum unit price per each of the deliverables by using the element RequiredItemLocationQuantity / PriceAmount / Price. See example in 3.3.3.2

- **CASE 3: If method of awarding is multiple criteria (AwardingMethodTypeCode = "Multiplicity of criteria")**

Indicate criteria for the award and how bids are going to be evaluated based on these criteria by using the AwardingTerms component. Awarding Terms is a class declared within Tendering Terms. A contracting authority may establish conditions for awarding to the whole project or to each of the lots if Tendering Terms are contained within the Project Procurement Lot. If method of awarding (AwardingMethodTypeCode) is set to multiple criteria, Awarding Terms should contain Awarding Criteria components to define the criteria that will be used to award the contract.

Most relevant elements in Awarding Terms component are:

- o **WeightingAlgorithmCode:** Weighting algorithm code describes an algorithm for weighting the award criteria set by contracting authorities. It should only be used in case of award by multiple criteria. It indicates how to calculate the total score of a tender from the score on each of the criteria and their weighting. For example, a widely used algorithm is the linear weighting, although it is possible to use other algorithms.

- o **Description:** A text description of award conditions.

- o **TechnicalCommitteeDescription:** Text description of the expert committee to carry out technical evaluation of subjective criteria from received tenders. It is only necessary to describe the technical committee if contract is awarded by multiple criteria and if there are some subjective criteria in the list of awarding criteria.

- o **LowTendersDescription:** Text description of the system established by the contracting authority to delimit tenders abnormally low.

- o **AwardingCriteria:** This complex component is used to identify different criteria for the awarding phase when it is established that the contract has to be awarded by multiple criteria. Awarding criteria can be objective or subjective depending on whether they can be evaluated by formulas or they require the evaluation from a technical committee. Awarding criteria contain:

    - ▪ **ID:** It identifies an award criterion. It must be established and it will be used as a reference in a Tender when replying to this criterion.

- **AwardingCriteriaTypeCode:** Code that defines the award criteria as either objective or subjective. Objective criteria are those that can be assessed through the application of objective formulas. Subjective criteria require participation of an expert committee to the subjective assessment of tenders. Including subjective criteria in a call for tenders requires creation of an expert committee to conduct tender's evaluation. This committee will also establish different envelopes that allow subjective technical analysis of received tenders before opening the envelopes where economic and technical criteria objectives are defined. This code can also indicate whether the criteria will be assessed through electronic auction.

- **Description:** Text description of award criteria.

- **WeightNumeric:** Weight or value assigned to the fulfillment of this criterion for award.

- **Weight:** Text description of the weighting of this criterion for the award.

- **CalculationExpression:** Text description or mathematical expression used to calculate the score for this criterion in terms of the values offered by different bidders.

- **CalculationExpressionCode:** Mathematical expression used to calculate the score for this criterion in terms of the values offered by all bidders, coded. Definition of each code establishes how to calculate the score of a tender to this criterion in terms of individual values offered, and their threshold.

- **MinimumQuantity:** Minimum quantity threshold for this award criterion.

- **MaximumQuantity:** Maximum quantity threshold for this award criterion.

- **MinimumAmount:** Minimum threshold amount for this award criterion.

- **MaximumAmount:** Maximum threshold amount for this award criterion.

- **MinimumImprovementBid:** Text description of the minimum bid that can be made for this criterion for award if it is used in an electronic auction bidding process.

- **SubordinateAwardingCriteria:** A criterion for the award can be divided into subcriterions.

- **TechnicalCommitteePerson:** Item that allows describing Expert Committee people, which is required for evaluation of subjective criteria for the award.

3.3.5.1 Examples of award criteria

Contracts evaluated using multiple criteria must specify awarding criteria using AwardingCriteria component in AwardTerms class.

Each AwardingCriteria element must have at least an identifier for bidders to reference it in the tender, a code discriminating if criterion is objective or subjective, a description and a weighting of the criteria.

```
<cac:TenderingTerms>
    <cbc:AwardingMethodTypeCode
        listURI="http://contrataciondelestado.es/codice/cl/1.04/AwardingTypeCode-1.04.gc"
        listVersionID="2006">1</cbc:AwardingMethodTypeCode>
    <cbc:PriceEvaluationTypeCode
        listURI="http://contrataciondelestado.es/codice/cl/1.04/ValorationTypeCode-1.04.gc"
        listVersionID="2006" >1</cbc:PriceEvaluationTypeCode>


        ....
```

```
<cac:AwardingTerms>
    <cac:AwardingCriteria>
        <cbc:ID >1</cbc:ID>
        <cbc:AwardingCriteriaTypeCode
            listURI="http://contrataciondelestado.es/codice/cl/2.0/AwardingCriteriaCode-2.0.gc"
listVersionID="2.0">OBJ</cbc:AwardingCriteriaTypeCode>
        <cbc:Description>Price</cbc:Description>
        <cbc:WeightNumeric >50</cbc:WeightNumeric>
    </cac:AwardingCriteria>
    <cac:AwardingCriteria>
        <cbc:ID>2</cbc:ID>
        <cbc:AwardingCriteriaTypeCode
            listURI="http://contrataciondelestado.es/codice/cl/2.0/AwardingCriteriaCode-2.0.gc"
listVersionID="2.0">SUBJ</cbc:AwardingCriteriaTypeCode>
        <cbc:Description >Quality</cbc:Description>
        <cbc:WeightNumeric >30</cbc:WeightNumeric>
    </cac:AwardingCriteria>
    <cac:AwardingCriteria>
        <cbc:ID >3</cbc:ID>
        <cbc:AwardingCriteriaTypeCode
            listURI="http://contrataciondelestado.es/codice/cl/2.0/AwardingCriteriaCode-2.0.gc"
listVersionID="2.0" >OBJ</cbc:AwardingCriteriaTypeCode>
        <cbc:Description >Delivery time</cbc:Description>
        <cbc:WeightNumeric >20</cbc:WeightNumeric>
    </cac:AwardingCriteria>
</cac:AwardingTerms>
```

Example 6 Weighted award criteria

3.3.6 Information on the documentation submitted by the tenderer

In an electronic tendering process, a bidder must submit electronically many envelopes to contracting authority as indicated in the call for tenders. He must submit envelopes to the contracting authority under the terms and conditions as set forth in the call for tenders. The creation of one or more envelopes to make a tender are due to legal requirements related to transparency and equality of opportunities that the contracting authorities shall guarantee.

For example, if some criteria are evaluated by value judgments (subjective) usually there will be at least three separate envelopes

A. First envelope carries administrative information about a tenderer to demonstrate creditworthiness and ability of the company or tenderer consortium.

B. Second envelope includes information regarding subjective criteria, which should allow subjective assessment by an expert committee.

C. Finally, a third envelope contains economic and technical information that allows the final award of the contract. The opening of the envelopes is typically held using different opening events, so that information contained in each envelope does not affect the assessment of the others.

The number of envelopes to submit and their contents are listed explicitly in the electronic call for tenders TenderPreparation CODICE component.

Component **Tender Preparation** from Call For Tenders indicates how many electronic envelopes (Envelope Tender documents) every bidder must create, and what to include in each of them. Data elements on Tender Preparation are:

- **TenderEnvelopeID:** ID of envelope specified by the contracting authority. In creating a tender a bidder must include this value in the ID of the Tender Envelope.

- **TenderEnvelopeTypeCode:** Code that specifies the type of tender document that must be attached within the envelope. Code values should follow established code list TenderEnvelopeTypeCode-2.0.gc.

- **ProcurementProjectLotID:** ID of lot or lots to which tenders submitted in this envelope belongs to.

  Since the date of opening for different lots may be different, call for tenders document may enable the grouping of lots in different envelopes.

- **OpenEventID:** In component TenderingProcess there can be one or more events for opening tenders, stating the date, time and place of opening. This identifier refers to the event that will be used to open this envelope.

- **Description:** Text description of the content to be included in an envelope, to be considered by a bidder when preparing a tender.

- **DocumentTenderRequirement:** List of documents necessary to be included in an envelope.

3.3.6.1 Example on how to prepare bids

In the example below contracting authority has defined three envelopes with each identifier. OpenEventID is used to establish a relation between each envelope and the opening act defined in another section (OpenTenderEvent on the Call for Tenders document).

Each TenderPreparation has one or more DocumentTenderRequirement, where documents to be attached within the envelope can be defined.

```
<cac:TenderPreparation>
    <cbc:TenderEnvelopeID >1</cbc:TenderEnvelopeID>
    <cbc:TenderEnvelopeTypeCode
        listURI="http://contrataciondelestado.es/codice/cl/2.0/TenderEnvelopeTypeCode-2.0.gc"
listVersionID="2.0" >1</cbc:TenderEnvelopeTypeCode>
    <cbc:OpenEventID >1</cbc:OpenEventID>
    <cac:DocumentTenderRequirement>
        <cbc:Name >TendererQualification</cbc:Name>
        <cbc:Description>CODICE structured document with information relating to the
bidder.</cbc:Description>
    </cac:DocumentTenderRequirement>
    <cac:DocumentTenderRequirement>
     <cbc:Name >GuaranteeCertificate</cbc:Name>
     <cbc:Description > CODICE structured document with the certificate of deposit guarantee in
advance.</cbc:Description>
    </cac:DocumentTenderRequirement>
  </cac:TenderPreparation>
```

```
<cac:TenderPreparation>
 <cbc:TenderEnvelopeID >2</cbc:TenderEnvelopeID>
 <cbc:TenderEnvelopeTypeCode
    listURI="http://contrataciondelestado.es/codice/cl/2.0/TenderEnvelopeTypeCode-2.0.gc"
listVersionID="2.0" >2</cbc:TenderEnvelopeTypeCode>
 <cbc:OpenEventID >2</cbc:OpenEventID>
 <cac:DocumentTenderRequirement>
  <cbc:Name >Tender</cbc:Name>
  <cbc:Description > Tender CODICE Document with  technical information describing
subjective award criteria..</cbc:Description>
 </cac:DocumentTenderRequirement>
 <cac:DocumentTenderRequirement>
  <cbc:Name >Other</cbc:Name>
  <cbc:Description> Other additional documents required by the tenderer. </cbc:Description>
 </cac:DocumentTenderRequirement>
</cac:TenderPreparation>
<cac:TenderPreparation>
    <cbc:TenderEnvelopeID >3</cbc:TenderEnvelopeID>
    <cbc:TenderEnvelopeTypeCode
     listURI="http://contrataciondelestado.es/codice/cl/2.0/TenderEnvelopeTypeCode-2.0.gc"
listVersionID="2.0" >3</cbc:TenderEnvelopeTypeCode>
    <cbc:OpenEventID>3</cbc:OpenEventID>
 <cac:DocumentTenderRequirement>
  <cbc:Name>Tender</cbc:Name>
  <cbc:Description > Tender CODICE with the amounts offered </cbc:Description>
 </cac:DocumentTenderRequirement>
</cac:TenderPreparation>
```

Example 7 Specification of envelopes to be submitted

3.3.7 Lots

Contracts can be divided into lots.

- **ProcurementProjectLot:** This division into lots is indicated with the Procurement Project Lot component, which can be used in Contract Notice, in Call For Tenders and in Contract Award Notice.

  Procurement Project Lot is repeated for each lot of the tender.

  In every lot the following elements can be defined:

- **ID:** Each lot shall have a numerical identifier. It usually indicates the lot number.

- **Procurement Project:** Description of contract object for this lot. It can detail deliverables, their maximum budget, execution deadlines or delivery times.

- **Tendering Terms:** Usually, lots apply to global tender conditions generically set in a header level Tendering Terms component. Optionally, each lot can have an association with specific tender conditions using this lot level Tendering Terms.

- **PartPresentationCode:** Moreover, Part Presentation Code element in Tendering Process component is used to indicate whether the tenderer shall supply a tender to all lots, to a single lot or to several lots.

- **Tendered Project:** In a contract with lots, the bidder may bid to more than one lot creating several components Tendered Project in the Tender document, one for each lot.

Contract Award Notice holds information about lots of the tender using ProcurementProjectLot repeats.

Each award is defined using a Tender Result component. Tender Result has an association with a Winner Party, i.e. the contractor, and an Awarded Tendered Project, namely structure of the Tender document that the contractor used in his actual tender to a particular lot.

Creating the Contract Award Notice on contracting authority side should start with the creation of header information such as information about lots.Then, for each successful tenderer, Tendered Project should be picked up from his Tender document and copy its structure to the Awarded Tendered Project in the Contract Award Notice, also copying data of the bidder in Winner Party class. In lots, there may be several repetitions of Tender Result component, one for each lot awarded.

For later phases of a procurement process, contract with lots shall be executed signing as many contracts as awarded lots.

3.3.7.1 Example of a contract notice with lots

In this example, a contracting authority has identified six lots by repeating 6 ProcurementProjectLot classes.

ID element of ProcurementProjectLot uses the attribute schemeName ID_LOTE to specify a lot number. Note that it is not necessary to have sorted lots in the XML document. Sorting can be done when viewing the information.

```xml
<cac:ProcurementProject >
    <cbc:Name>Suministro de víveres 2º y 3º trimestre de 2010 en la Academia General del Aire</cbc:Name>
    <cbc:TypeCode
            languageID="es"
            listURI="http://contrataciondelestado.es/codice/cl/1.04/ContractCode-1.04.gc"
            listVersionID="2006"
            name="Suministros">1</cbc:TypeCode>
    <cbc:SubTypeCode
            languageID="es"
            listURI="http://contrataciondelestado.es/codice/cl/1.04/GoodsContractCode-1.04.gc"
            listVersionID="2006"
            name="Adquisición">2</cbc:SubTypeCode>
    <cac:BudgetAmount >
      <cbc:TotalAmount
                currencyID="EUR">205000</cbc:TotalAmount>
      <cbc:TaxExclusiveAmount
                    currencyID="EUR">190701.8</cbc:TaxExclusiveAmount>
    </cac:BudgetAmount>
    <cac:RequiredCommodityClassification >
      <cbc:ItemClassificationCode>15000000</cbc:ItemClassificationCode>
    </cac:RequiredCommodityClassification>
  </cac:ProcurementProject>
  <cac:ProcurementProjectLot >
    <cbc:ID schemeName="ID_LOTE">4</cbc:ID>
    <cac:ProcurementProject >
      <cbc:Name>Suministro de víveres 2º y 3º trimestre de 2010 en la Academia General del Aire</cbc:Name>
      <cbc:Description >Congelados</cbc:Description>
      <cbc:TypeCode
            languageID="es"
            listURI="http://contrataciondelestado.es/codice/cl/1.04/ContractCode-1.04.gc"
            listVersionID="2006"
            name="Suministros">1</cbc:TypeCode>
      <cac:BudgetAmount>
        <cbc:TotalAmount
                currencyID="EUR">30000</cbc:TotalAmount>
```

```
            <cbc:TaxExclusiveAmount
                    currencyID="EUR">27907.58</cbc:TaxExclusiveAmount>
        </cac:BudgetAmount>
        <cac:RequiredCommodityClassification>
          <cbc:ItemClassificationCode>15000000</cbc:ItemClassificationCode>
        </cac:RequiredCommodityClassification>
      </cac:ProcurementProject>
    </cac:ProcurementProjectLot>
    <cac:ProcurementProjectLot >
      <cbc:ID schemeName="ID_LOTE">5</cbc:ID>
      <cac:ProcurementProject >
        <cbc:Name >Suministro de víveres 2º y 3º trimestre de 2010 en la Academia General del
Aire</cbc:Name>
        <cbc:Description>Lacteos</cbc:Description>
        <cbc:TypeCode
                languageID="es"
                listURI="http://contrataciondelestado.es/codice/cl/1.04/ContractCode-1.04.gc"
                listVersionID="2006"
                name="Suministros">1</cbc:TypeCode>
        <cac:BudgetAmount>
          <cbc:TotalAmount
                    currencyID="EUR">18000</cbc:TotalAmount>
          <cbc:TaxExclusiveAmount
                    currencyID="EUR">16744.54</cbc:TaxExclusiveAmount>
        </cac:BudgetAmount>
        <cac:RequiredCommodityClassification>
          <cbc:ItemClassificationCode>15000000</cbc:ItemClassificationCode>
        </cac:RequiredCommodityClassification>
      </cac:ProcurementProject>
    </cac:ProcurementProjectLot>
    <cac:ProcurementProjectLot >
      <cbc:ID schemeName="ID_LOTE">6</cbc:ID>
      <cac:ProcurementProject >
        <cbc:Name >Suministro de víveres 2º y 3º trimestre de 2010 en la Academia General del
Aire</cbc:Name>
        <cbc:Description >Bebidas y refrescos</cbc:Description>
        <cbc:TypeCode
                languageID="es"
                listURI="http://contrataciondelestado.es/codice/cl/1.04/ContractCode-1.04.gc"
                listVersionID="2006"
                name="Suministros">1</cbc:TypeCode>
        <cac:BudgetAmount>
          <cbc:TotalAmount
                    currencyID="EUR">37000</cbc:TotalAmount>
          <cbc:TaxExclusiveAmount
                    currencyID="EUR">34419.36</cbc:TaxExclusiveAmount>
        </cac:BudgetAmount>
        <cac:RequiredCommodityClassification>
          <cbc:ItemClassificationCode>15000000</cbc:ItemClassificationCode>
        </cac:RequiredCommodityClassification>
      </cac:ProcurementProject>
    </cac:ProcurementProjectLot>
    <cac:ProcurementProjectLot >
      <cbc:ID schemeName="ID_LOTE">2</cbc:ID>
      <cac:ProcurementProject >
        <cbc:Name >Suministro de víveres 2º y 3º trimestre de 2010 en la Academia General del
Aire</cbc:Name>
        <cbc:Description>Carne, aves y derivados (frescos) y embutidos</cbc:Description>
        <cbc:TypeCode
                languageID="es"
                listURI="http://contrataciondelestado.es/codice/cl/1.04/ContractCode-1.04.gc"
                listVersionID="2006"
                name="Suministros">1</cbc:TypeCode>
        <cac:BudgetAmount>
          <cbc:TotalAmount
                    currencyID="EUR">60000</cbc:TotalAmount>
          <cbc:TaxExclusiveAmount
                    currencyID="EUR">55815.16</cbc:TaxExclusiveAmount>
        </cac:BudgetAmount>
```

```
            <cac:RequiredCommodityClassification>
              <cbc:ItemClassificationCode>15000000</cbc:ItemClassificationCode>
            </cac:RequiredCommodityClassification>
          </cac:ProcurementProject>
        </cac:ProcurementProjectLot>
        <cac:ProcurementProjectLot >
          <cbc:ID schemeName="ID_LOTE">3</cbc:ID>
          <cac:ProcurementProject >
            <cbc:Name >Suministro de víveres 2º y 3º trimestre de 2010 en la Academia General del
Aire</cbc:Name>
            <cbc:Description >Pescado fresco</cbc:Description>
            <cbc:TypeCode
                    languageID="es"
                    listURI="http://contrataciondelestado.es/codice/cl/1.04/ContractCode-1.04.gc"
                    listVersionID="2006"
                    name="Suministros">1</cbc:TypeCode>
            <cac:BudgetAmount>
              <cbc:TotalAmount
                        currencyID="EUR">30000</cbc:TotalAmount>
              <cbc:TaxExclusiveAmount
                            currencyID="EUR">27907.58</cbc:TaxExclusiveAmount>
            </cac:BudgetAmount>
            <cac:RequiredCommodityClassification>
              <cbc:ItemClassificationCode >15000000</cbc:ItemClassificationCode>
            </cac:RequiredCommodityClassification>
          </cac:ProcurementProject>
        </cac:ProcurementProjectLot>
        <cac:ProcurementProjectLot >
          <cbc:IDschemeName="ID_LOTE">1</cbc:ID>
          <cac:ProcurementProject >
            <cbc:Name >Suministro de víveres 2º y 3º trimestre de 2010 en la Academia General del
Aire</cbc:Name>
            <cbc:Description >Varios</cbc:Description>
            <cbc:TypeCode
                    languageID="es"
                    listURI="http://contrataciondelestado.es/codice/cl/1.04/ContractCode-1.04.gc"
                    listVersionID="2006"
                    name="Suministros">1</cbc:TypeCode>
            <cac:BudgetAmount>
              <cbc:TotalAmount
                        currencyID="EUR">30000</cbc:TotalAmount>
              <cbc:TaxExclusiveAmount
                            currencyID="EUR">27907.58</cbc:TaxExclusiveAmount>
            </cac:BudgetAmount>
            <cac:RequiredCommodityClassification>
              <cbc:ItemClassificationCode >15000000</cbc:ItemClassificationCode>
            </cac:RequiredCommodityClassification>
          </cac:ProcurementProject>
        </cac:ProcurementProjectLot>
```

Example 8 Project lots

3.3.7.2 Example of a contract award notice to several lots

The example below announces the award of two lots to two different bidders. Header of the document details lots as defined in contract notice with ProcurementProjectLot classes. On the other hand, TenderResult classes include tender information provided by each contractor through the use of AwardedTenderedProject.

```
<cac:ProcurementProject>
l        <cbc:Name>CONTRATACIÓN DE SERVICIOS AGRÍCOLAS Y GANADEROS PARA EL CENTRO
DE MEJORA GANADERA EL CHANTRE</cbc:Name>
l       ….
</cac:ProcurementProject>
<cac:ProcurementProjectLot>
     <cbc:ID>1</cbc:ID>
```

```
I    <cac:ProcurementProject>
I       <cbc:Name>MANEJO, VIGILANCIA Y CONTROL DEL GANADO OVINO</cbc:Name>
I       <cbc:TypeCodeI    languageID="es"I
          listURI="http://contrataciondelestado.es/codice/cl/1.04/ContractCode-1.04.gc"I
          listVersionID="2006" name="Servicios">2</cbc:TypeCode>
        <cac:BudgetAmount>
I          <cbc:TaxExclusiveAmountI  currencyID="EUR">25939.74</cbc:TaxExclusiveAmount>
        </cac:BudgetAmount>
        <cac:RequiredCommodityClassification>I
           <cbc:ItemClassificationCode>77000000</cbc:ItemClassificationCode>I
        </cac:RequiredCommodityClassification>
     </cac:ProcurementProject>
</cac:ProcurementProjectLot>
<cac:ProcurementProjectLot>
I    <cbc:ID>2</cbc:ID>
    <cac:ProcurementProject>
       <cbc:Name>CULTIVO DE FINCAS RÚSTICAS Y CUIDADO Y ATENCIÓN DEL GANADO
PORCINO</cbc:Name>
        <cbc:TypeCodeI   languageID="es"I
            listURI="http://contrataciondelestado.es/codice/cl/1.04/ContractCode-1.04.gc"I
            listVersionID="2006"  name="Servicios">2</cbc:TypeCode>
        <cac:BudgetAmount>
I        <cbc:TaxExclusiveAmountI  currencyID="EUR">24276.41</cbc:TaxExclusiveAmount>
        </cac:BudgetAmount>
        <cac:RequiredCommodityClassification>I
          <cbc:ItemClassificationCode>77000000</cbc:ItemClassificationCode>I
        </cac:RequiredCommodityClassification>
     </cac:ProcurementProject>
</cac:ProcurementProjectLot>
<cac:TenderResult>
    <cbc:ResultCodeI   languageID="es"I
        listURI="http://contrataciondelestado.es/codice/cl/1.05/TenderResultCode-1.05.gc"I
        listVersionID="1.05"I  name="Adjudicado Provisionalmente">1</cbc:ResultCode>
    <cbc:Description>Adjudicación provisional contratación de servicios agrícolas y ganaderos
para el Centro de Mejora Ganadera El Chantre</cbc:Description>
I    <cbc:AwardDate>2010-01-28+01:00</cbc:AwardDate>I
    <cbc:AwardTime>00:00:00+01:00</cbc:AwardTime>
    <cac:WinningParty>I
        <cac:PartyIdentification>I
          <cbc:IDI   schemeName="NIF">41xxxxx77M</cbc:ID>
I        </cac:PartyIdentification>I
        <cac:PartyName>I
          <cbc:Name>MANUEL xxxx </cbc:Name>I
        </cac:PartyName>I
    </cac:WinningParty>I
    <cac:AwardedTenderedProject>I
        <cbc:ProcurementProjectLotID>1</cbc:ProcurementProjectLotID>I
        <cac:LegalMonetaryTotal>I
          <cbc:TaxExclusiveAmount currencyID="EUR">25655.26</cbc:TaxExclusiveAmount>I
          <cbc:PayableAmountI  currencyID="EUR">27591.11</cbc:PayableAmount>I
        </cac:LegalMonetaryTotal>I
    </cac:AwardedTenderedProject>I
</cac:TenderResult>I
<cac:TenderResult>I
    <cbc:ResultCodeI   languageID="es"
I       listURI="http://contrataciondelestado.es/codice/cl/1.05/TenderResultCode-1.05.gc"I
       listVersionID="1.05"I  name="Adjudicado Provisionalmente">1</cbc:ResultCode>I
    <cbc:Description>Adjudicación provisional contratación de servicios agrícolas y ganaderos
para el Centro de Mejora Ganadera El Chantre</cbc:Description>I
    <cbc:AwardDate>2010-01-28+01:00</cbc:AwardDate>I
    <cbc:AwardTime>00:00:00+01:00</cbc:AwardTime>I
    <cac:WinningParty>I
        <cac:PartyIdentification>I
          <cbc:ID schemeName="NIF">181xxxx72C</cbc:ID>I
        </cac:PartyIdentification>I
        <cac:PartyName>I
          <cbc:Name>ELISEO xxxxx</cbc:Name>I
        </cac:PartyName>I
    </cac:WinningParty>I
```

```
   <cac:AwardedTenderedProject>I
        <cbc:ProcurementProjectLotID>2</cbc:ProcurementProjectLotID>I
        <cac:LegalMonetaryTotal>I
           <cbc:TaxExclusiveAmount currencyID="EUR">24276.41</cbc:TaxExclusiveAmount>I   I
           <cbc:PayableAmount  currencyID="EUR">26108.16</cbc:PayableAmount>I
        </cac:LegalMonetaryTotal>I
   </cac:AwardedTenderedProject>I
</cac:TenderResult>
```

3.3.8 Acceptance of variants

A contracting authority may decide to accept variations in tenders, indicating it in the call for tenders. There are different properties in the component Tendering Terms that allow this process to be done:

- **VariantConstraintIndicator:** It is a logical property (true or false) used to indicate whether variant tenders from economic operators will be accepted.

- **MaximumVariantQuantity:** It is used to specify the maximum number of allowed variations in the tenders submitted by a tenderer.

- **AcceptedVariantsDescription:** It describes elements that can be changed by the bidder.

3.3.9 Framework agreements and dynamic purchasing systems

Framework agreements and dynamic purchasing systems are types of contracts aimed at streamlining and simplification of purchasing processes. Both processes have two phases:

1. Establishment phase, where contracting authorities select the operators that can participate in the procurement system

2. Execution phase, where contracting authorities effectively purchase.

In dynamic purchasing systems, establishment phase is kept open throughout the duration of the system, so traders can always make an indicative tender to apply for inclusion into the system.

In framework agreements, establishment phase ends with a multiple awarding which identifies all economic operators who may participate in the actual execution phase. Later execution stages in framework agreements can be made by re-opening of the tendering process, if not all items of the successive contracts are known. It can also be made directly with an order if all items of the contract were identified when establishing the framework agreement. Acting this way, a contracting authority does not have to re-create a contract notice or a call for tenders, it is simply necessary to order it to the desired provider.

Therefore, for repetitive contracts there are two types of notices and Call for Tenders in CODICE. One type refers to the establishment of the system and the other refers to subsequent contracts. ContractingSystemCode in Tendering Process serves to identify what type of repetitive contracting we are defining. Contracting System Code is subject to the code list ContractingSystemTypeCode and its values may be:

- Establishment of framework agreement

- Establishment of dynamic purchasing system

- Contract based on a framework agreement

- Contract based on a dynamic purchasing system

Besides Contracting System Type Code, establishment contracts should define conditions that shall govern repetitive procurement systems. These special conditions are defined in the component called FrameworkAgreement that has the following data:

- **ExpectedOperatorQuantity:** Expected number of entrepreneurs or economic operators in a framework agreement.

- **MaximumOperatorQuantity:** Maximum number of entrepreneurs or economic operators in a framework agreement.

- **Justification:** Justification for the need of a framework agreement lasting more than four years.

- **Frequency:** Text description of the award frequency of subsequent contracts.

- **DurationPeriod:** Duration of a framework agreement expressed as a period. It is recommended to use the element Duration Measure within Period to specify duration.

- **SubsequentProcessTenderRequirement:** In framework agreements, conditions or requirements that must be satisfied in subsequent processes.

Subsequent contracts must use conventional CODICE documents for notices or to specify terms and conditions, but it is necessary to identify that it is a contract subject to a framework agreement or dynamic purchasing system using the property Contracting System Type Code identified above. It is also required to specify the Original Contracting System ID property of the class Tendering Process to identify the framework agreement or dynamic system to which this subsequent contract refers.

3.4 Preparation of tenders

3.4.1 Electronic envelope

Documents submitted by a tenderer should be wrapped in an envelope using an Envelope Tender document before being submitted to a contracting authority. This electronic envelope may incluye:

- Bids (Tender)

- Administrative Documentation (TendererQualification)

- Receipt of Guarantee (GuaranteeCertificate)

- Endorsements or guarantees issued by financial institutions (Guarantee)

Wrapping documents in an electronic envelope facilitates tasks such as encryption of documents that help to preserve its confidentiality until the date of opening; keeping unencrypted other information that must be visible before the opening of bids, such as identifiers for the sender and the recipient, or identifier of the envelope used to differentiate in which event it should be opened.

A tender in electronic format is a set of electronic documents, grouped in one or several envelopes called Tender Envelope. Following the instructions in TenderPreparation components

of a call for tenders, an economic operator must create as many Tender Envelopes as required and attach all the documentation requested in a call for tenders.

CODICE Tender Envelope document is an XML structure that contains the following information:

- **ID:** Identifier of the envelope must match with the TenderEnvelopeID defined in TenderPreparation component. This action will facilitate a contracting authority to know in what event this envelope must be opened.

- **TenderEnvelopeTypeCode:** Code indicating whether the content is a technical, economic or economic and technical tender document.

- **IssueDate:** Date of issue of the envelope. It has no value for the purpose of date of tender submission . Contracting authorities set the deadline for tender reception through a date and time of receipt of tenders. It also sets the date and time of reception of a particular tender driving to its acceptance or rejection.

- **IssueTime:** Envelope time of issue , with the same comments as for the date of issuance.

- **ContractFolderID:** Identifier of the contract file referenced by this tender.

- **ContractName:** Object of contract name, set at the top of an envelope for information.

- **Note:** Additional descriptive text that economic operator may use to report unstructured information.

- **SenderParty:** Information about the issuer of the envelope. It is usually the economic operator party.

- **ReceiverParty:** Information about the receiver of tenders. It is usually the contracting authority responsible for the award of the contract.

- **TendererQualificationDocumentReference:** Document Reference to TendererQualification document. In this document reference, tenderer qualification document can be attached. It must be attached only in the administrative envelope.

- **GuaranteeDocumentReference:** Document Reference to GuaranteeCertificate document. It allows the certificate of provisional or final guarantee to be incorporated in envelopes where necessary.

- **TenderDocumentReference:** Reference to the Tender document, to incorporate information of a tender in those envelopes where necessary. As seen above, a tender may require the submission of various envelopes, one for technical information and one for economic data, several envelopes to specify technical and / or economic tender to various lots, etc. In all cases, CODICE document used to inform about technical tender and economic information is the Tender document, which means that an electronic tendering can contain several Tender documents of the same bidder.

- **AdditionalDocumentReference:** Finally, each envelope has the possibility of incorporating other documents, which can be structured or not. AdditionalDocumentReference component allows all these documents to be included.

- **Signature:** For information on electronic signatures, see the Implementation Guide of signatures.

3.4.1.1 Example of electronic envelope

In [3.3.6.1](#) a contracting authority specified instructions for submission of tenders using the Tender Preparation component of Call For Tenders.

The first iteration of the example Tender Preparation component was:

```
<<cac:TenderPreparation>
    <cbc:TenderEnvelopeID >1</cbc:TenderEnvelopeID>
    <cbc:TenderEnvelopeTypeCode
        listURI="http://contrataciondelestado.es/codice/cl/2.0/TenderEnvelopeTypeCode-2.0.gc"
listVersionID="2.0" >1</cbc:TenderEnvelopeTypeCode>
    <cbc:OpenEventID >1</cbc:OpenEventID>
    <cac:DocumentTenderRequirement>
        <cbc:Name >TendererQualification</cbc:Name>
        <cbc:Description>Documento estructurado CODICE con información relativa al
licitador.</cbc:Description>
    </cac:DocumentTenderRequirement>
    <cac:DocumentTenderRequirement>
     <cbc:Name >GuaranteeCertificate</cbc:Name>
     <cbc:Description >Documento estructurado CODICE con el certificado de la garantía
provisional depositado.</cbc:Description>
    </cac:DocumentTenderRequirement>
</cac:TenderPreparation>
```

This component indicates that you must prepare an envelope type 1 (Administrative envelope) that will be opened in the event identified with ID 1. It must contain an structured document TendererQualification and a Guarantee Certificate. Let's see the envelope document associated with this requirement.

```
<?xml version="1.0" encoding="UTF-8"?>
<TenderEnvelope                xmlns="urn:dgpe:names:draft:codice:schema:xsd:TenderEnvelope-2"
 xmlns:ext="urn:oasis:names:specification:ubl:schema:xsd:CommonExtensionComponents-2"
 xmlns:cbc="urn:dgpe:names:draft:codice:schema:xsd:CommonBasicComponents-2"
 xmlns:cac="urn:dgpe:names:draft:codice:schema:xsd:CommonAggregateComponents-2"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
   <ext:Extensions>
     <ext:Extension>
        .... Digital Signature ...
     </ext:Extension>
   </ext:Extensions>
     …
   <cbc:ID>1</cbc:ID>
   <cbc:TenderEnvelopeTypeCode
        listURI="http://contrataciondelestado.es/codice/cl/2.0/TenderEnvelopeTypeCode-2.0.gc"
        listVersionID="2.0" >1</cbc:TenderEnvelopeTypeCode>
   <cbc:IssueDate>2010-05-04</cbc:IssueDate>
   <cbc:IssueTime>01:01:01.001</cbc:IssueTime>
   <cbc:ContractFolderID>EXP129910-02</cbc:ContractFolderID>
   <cbc:ContractName>Descripción objeto del contrato</cbc:ContractName>
   <cac:SenderParty>
     <cac:PartyIdentification>
       <cbc:ID schemeName="NIF">B92349892</cbc:ID>
     </cac:PartyIdentification>
     <cac:PartyName>
       <cbc:Name>Empresa Licitadora</cbc:Name>
     </cac:PartyName>
   </cac:SenderParty>
   <cac:ReceiverParty>
     <cac:PartyIdentification>
       <cbc:ID schemeName="NIF">G98239929</cbc:ID>
     </cac:PartyIdentification>
      <cac:PartyName>
       <cbc:Name>Órgano de contratación</cbc:Name>
     </cac:PartyName>
   </cac:ReceiverParty>
   <cac:TendererQualificationDocumentReference>
     <cbc:ID>ID459</cbc:ID>
```

```
        <cbc:IssueDate>2010-05-04</cbc:IssueDate>
        <cbc:DocumentType>Qualification document</cbc:DocumentType>
        <cac:Attachment>
           <cbc:EmbeddedDocumentBinaryObject    mimeCode="application/xml">ZGVmYXVsdA==    ....
TendererQualification          CODICEBase64          ...</cbc:EmbeddedDocumentBinaryObject>
        </cac:Attachment>
     </cac:TendererQualificationDocumentReference>
     <cac:GuaranteeDocumentReference>
        <cbc:ID>ID532</cbc:ID>
        <cbc:IssueDate>2010-05-04</cbc:IssueDate>
        <cbc:DocumentType>Provisional Guarantee Certificate</cbc:DocumentType>
        <cbc:LocaleCode>es</cbc:LocaleCode>
        <cac:Attachment>
           <cbc:EmbeddedDocumentBinaryObject       mimeCode="application/xml">ZGVmYXVsdA==....
GuaranteeCertificate    CODICE    en    Base64    ...</cbc:EmbeddedDocumentBinaryObject>
        </cac:Attachment>
        <cac:IssuerParty>
           <cac:PartyIdentification>
              <cbc:ID schemeName="NIF">G93829222</cbc:ID>
           </cac:PartyIdentification>
           <cac:PartyName>
              <cbc:Name>Entidad emisora del certificado</cbc:Name>
           </cac:PartyName>
        </cac:IssuerParty>
     </cac:GuaranteeDocumentReference>
     <cac:Signature>
        <cbc:ID>ID973</cbc:ID>
        <cac:SignatoryParty>
           <cac:PartyIdentification>
              <cbc:ID schemeName="NIF">B92349892</cbc:ID>
           </cac:PartyIdentification>
           <cac:PartyName>
              <cbc:Name>Empresa Licitadora</cbc:Name>
           </cac:PartyName>
        </cac:SignatoryParty>
     </cac:Signature>
</TenderEnvelope>
```

In this example the ID of TenderEnvelope must match with required TenderEnvelopeID on TenderPreparation component. TenderEnvelopeTypeCode matches in both TenderEnvelope and TenderPreparation components.

As required, TendererQualification and Guarantee Certificate documents have been annexed with two separate components TendererQualificationDocumentReference and GuaranteeDocumentReference respectively. In this example, these documents have been embedded within the EmbeddedDocumentBinaryObject, although you could have made reference to an external document by using the component ExternalReference URL.

Signatures are incorporated into extensions as described in the Implementation Guide for Electronic Signatures.

3.4.2 Electronic Tender

CODICE Tender documents have header level properties to which we must refer in this section. As we have already seen, a tendering process may require a bidder to create various Tender documents to meet different needs for technical or economic information. Therefore, each document must specify the following metadata:

- **ID:** Unique identifier of an XML instance Tender document. In a single competition, if an economic operator submits different Tender documents in different envelopes, the IDs for each Tender document must be different.

- **TenderTypeCode:** Each Tender document should state whether a bid document is a technical, economic or mixed, with technical and economic information, by using this code.

Economic operators who wish to tender electronically to a tendering process using CODICE should generate a Tender document with required information.

Generally, Tender documents are composed of one or more Tendered Projects. As discussed below, a Tendered Project component can appear several times in a single document to define tenders to different lots or to define variants.

Within each Tendered Project there are three sets of information that will help performing evaluation and award processes: LegalMonetaryTotal, with total amounts for the tender, all TenderLines with details of products and services offered, and AwardingCriteriaResponse necessary only in case of a contract that has to be awarded using multiple awarding criteria.

Elements of Tendered Project are:

- **ProcurementProjectLotID:** Lot ID referred to in this Tendered Project.

- **VariantID:** Variant identifier required if this tendered project is a variant.

- **FeeAmount:** Amount of fee for concession contracts.

- **FeeDescription:** Text description of the fee for concession contracts.

- **TaxTotal:** complex element that allows economic operators to determine total taxes applicable to the project.

- **LegalMonetaryTotal:** complex element that allows economic operator to determine relevant amounts of the project. The most important are:

    o **LineExtensionAmount:** Sum of line totals.

    o **TaxExclusiveAmount:** Taxable income or total without taxes.

    o **PayableAmount:** Total to pay for the project.

- **TenderLine:** Complex component that describes in detail each deliverable of the tender, their technical specifications and quantities and amounts.

- **AwardingCriteriaResponse:** Complex component to determine answers to award criteria set out in the call for tenders.

Elements that should be informed by economic operator in a tender are:

- **LegalMonetaryTotal:** UBL generic component that allows monetary amounts to be specified. In the case of a tenderit it is recommended to follow this guidelines:

    o **LineExtensionAmount:** Sum of total tender lines without taxes (TenderLine). It is calculated as the sum of LineExtensionAmount for all TenderLines.

- o **TaxExclusiveAmount:** Taxable total, total amount offered without taxes. In UBL this value is different from LineExtensionAmount as it is calculated subtracting deductions (Allowances), and adding charges (Charges). In tendering it normally matches LineExtensionAmount.

  - o **AllowanceTotalAmount:** It defines total discount applicable to the tender. It subtracts LineExtensionAmount to calculate the TaxExclusiveAmount.

  - o **ChargeTotalAmount:** It defines total charges applicable to the tender. It sums with LineExtensionAmount to calculate the TaxExclusiveAmount.

  - o **PrepaidAmount:** It defines any prepaid amount applicable to the transaction. It is not used in tenders.

  - o **PayableRoundingAmount:** It defines rounding applicable to TaxInclusiveAmount. It can be positive or negative.

  - o **TaxInclusiveAmount:** Total amount taxes included. It is calculated based on the TaxExclusiveAmount plus sum of TaxTotalAmount and PayableRoundingAmount.

  - o **PayableAmount:** Total amount to pay. It is the final price for the whole tender and it has to be always informed. As there are no prepayments on tenders, it always matches with TaxInclusiveAmount.

- **TenderLine:** Information about a product or service of a tender document. Each TenderLine can be considered a response to a RequestForTenderLine. Elements that make up a tender line are:

  - o **ID:** it uniquely identifies a line in a tender document.

  - o **Note:** it contains a descriptive text, which can be a note or any other similar information that is not contained in another structure.

  - o **Quantity:** Quantity of products and / or services covered by this line.

  - o **LineExtensionAmount:** Total without taxes for this tender line.

  - o **TotalTaxAmount:** Total amount of taxes that apply to this tender line.

  - o **OrderableUnit:** a text description of the unit that an order would be based on

  - o **ContentUnitQuantity:** Contents of an order unit. It indicates the number of elements of the type indicated by the attribute unitCode contained in an order unit.

  - o **OrderQuantityIncrementNumeric:** It indicates that order units can be increased in multiples of this quantity from the minimum order.

  - o **MinimumOrderQuantity:** Minimum number of elements that may apply.

  - o **MaximumOrderQuantity:** Maximum number of items that may apply.

  - o **WarrantyInformation:** Information about the warranty associated with the good or service.

  - o **PackLevelCode:** It indicates the level of packaging used.

- o **DocumentReference:** It allows you to attach additional documentation about a product or service through unstructured documents.

- o **Item:** In this case, reused Item UBL library component must uniquely identify products or services offered by economic operators, establishing required attributes such as the ID of the seller or a standard identifier, brand and model or other identification information.

- o **OfferedItemLocationQuantity:** Amount described in terms of location and quantity of this product or service. If evaluation of tenders is stated per unit prices, report here the unit price per offered items. This component allows price bands to be described based on quantities or based on location. However you can also specify a single price including only the following component:

  - ▪ **Price:** Specification of unit price for a product or service.

- o **ReplacementRelatedItem:** Component that describes products or services that can replace an offered product or service.

- o **WarrantyParty:** Guarantor responsible for providing the warranty on a product or service.

- o **WarrantyValidityPeriod:** Period of validity of the warranty.

- o **SubTenderLine:** As in the RequestForTenderLine, tender lines can be broken down to fit required values in the call for tenders.

If call for tenders establishes the method of awarding as multiplicity of criteria (AwardingMethodTypeCode = "multiple criteria"), a bidder should use AwardingCriteriaResponse structures to facilitate responses to awarding criteria set out in the call for tenders, creating a summary table of its tender will be useful for a contracting authority when proceeding to tender evaluation.

In this structure, economic operator may enter information on awarding criteria and the response of his tender to that criterion. This response can be set in terms of textual, numerical or amount level, depending on the nature of the criterion.

The relationship between responses and original criteria is done by reference to the original identifier of the awarding criteria in the tender.

The response elements to awarding criteria are:

- o **ID:** Unique identifier of a response to an awarding criterion.

- o **AwardingCriteriaID:** Identifier of the original award criteria laid down in the call for tenders referenced by this response. It is used to identify an awarding criteria established in the call for tenders.

- o **AwardingCriteriaDescription:** Text description of original award criteria referred to in this response as contained in a call for tenders.

- o **Description:** Text description of a response to an award criterion. When answers to award criteria should be textual, it disables the possibility of automation. Therefore it requires human intervention to score tenders.

- o **Quantity:** There are criteria that assess a quantity. In these cases, as a summary, a tenderer can report this quantity. For example, if in a call for tenders an awarding criterion was the number of graduates in a consulting project, tender

would include this quantity in this component, facilitating automatic evaluation of criterion.

- o **Amount:** Similarly, in cases where award criteria can be assessed by an amount, economic operator may report the amount associated with criteria in this component.

- o **SubordinateAwardingCriteriaResponse:** Criteria for award of a tender can be broken down into subcriteria. Similarly, responses can also be broken down to specify a subordinate awarding criteria response.

3.4.2.1 Example of lump-sum tender

Indicate a lump sum price offered for each deliverable with the element TenderLine / LineExtensionAmount.

Example in showed a services purchase at lump sum:

```
<cac:RequestForTenderLine>
    <cbc:ID>1</cbc:ID>
    <cbc:Quantity>1</cbc:Quantity>
    <cbc:MaximumTaxExclusiveAmount currencyID="EUR" > 12000
        </cbc:MaximumTaxExclusiveAmount>
    <cbc:MaximumTaxInclusiveAmount currencyID="EUR" >14000
        </cbc:MaximumTaxInclusiveAmount>
    <cac:Item>
     <cbc:Description >Servicio de limpieza de planta</cbc:Description>
     <cbc:Name >Servicio de limpieza</cbc:Name>
     <cac:CommodityClassification>
        <cbc:ItemClassificationCode
         listURI="http://contrataciondelestado.es/codice/cl/1.04/CPV2007-1.04.gc"
         listVersionID="2007" >45259000
        </cbc:ItemClassificationCode>
     </cac:CommodityClassification>
    </cac:Item>
  </cac:RequestForTenderLine>
```

To answer to this kind of line in CallForTenders, tenderers should provide a line in his Tender document with the quantity offered and the amount of the line plus the total amount of taxes as showed below. Evaluation process will take into account the quantity and the total amount to proceed to sort received tenders.

```
<cac:TenderLine>
        <cbc:ID>1</cbc:ID>
        <cbc:Quantity>1</cbc:Quantity>
        <cbc:LineExtensionAmount currencyID="EUR">11450</cbc:LineExtensionAmount>
        <cbc:TotalTaxAmount currencyID="EUR">1832</cbc:TotalTaxAmount>
        <cac:Item>
            <cbc:Description>Servicio de limpieza de planta</cbc:Description>
            <cbc:Name>Limpieza Plus</cbc:Name>
            <cac:SellersItemIdentification>
                <cbc:ID>ID1112234</cbc:ID>
            </cac:SellersItemIdentification>
            <cac:CommodityClassification>
                <cbc:ItemClassificationCode
                    listURI="http://contrataciondelestado.es/codice/cl/1.04/CPV2007-1.04.gc"
                    listVersionID="2007">45259000</cbc:ItemClassificationCode>
            </cac:CommodityClassification>
        </cac:Item>
    </cac:TenderLine>
```

3.4.2.2 Example of tender with unit prices

Describe unit price for each deliverables using the element TenderLine / OfferedItemLocationQuantity / Price. In this case a tender must contain as many instances of OfferedItemLocationQuantity component as there are in the call for tenders.

In the example in we saw:

```xml
<cac:RequestForTenderLine>
    <cbc:ID>2</cbc:ID>
    <cbc:Quantity>1000</cbc:Quantity>
    <cbc:MaximumTaxExclusiveAmount currencyID="EUR">6000
        </cbc:MaximumTaxExclusiveAmount>
    <cbc:MaximumTaxInclusiveAmount currencyID="EUR">7000
        </cbc:MaximumTaxInclusiveAmount>
    <cac:RequiredItemLocationQuantity>
     <cac:Price>
      <cbc:PriceAmount currencyID="EUR">6</cbc:PriceAmount>
     </cac:Price>
    </cac:RequiredItemLocationQuantity>
    <cac:Item>
     <cbc:Name>Bloc de notas</cbc:Name>
     <cac:CommodityClassification>
        <cbc:ItemClassificationCode
          listURI="http://contrataciondelestado.es/codice/cl/1.04/CPV2007-1.04.gc"
          listVersionID="2007">22816100</cbc:ItemClassificationCode>
     </cac:CommodityClassification>
     <cac:AdditionalItemProperty>
        <cbc:Name>Tapa</cbc:Name>
        <cbc:Value>Dura</cbc:Value>
     </cac:AdditionalItemProperty>
     <cac:AdditionalItemProperty>
        <cbc:Name>Páginas</cbc:Name>
        <cbc:ValueQuantity>50</cbc:ValueQuantity>
     </cac:AdditionalItemProperty>
     <cac:AdditionalItemProperty>
        <cbc:Name>Tamaño</cbc:Name>
        <cbc:Value>A4</cbc:Value>
     </cac:AdditionalItemProperty>
    </cac:Item>
  </cac:RequestForTenderLine>
```

In this example, Tender document should specify unit prices for offered products to facilitate comparison to contracting authorities. In this case it is necessary to add OfferedItemLocationQuantity to each line with information about offered prices.

```xml
<cac:TenderLine>
        <cbc:ID>2</cbc:ID>
        <cbc:Quantity>1000</cbc:Quantity>
        <cbc:LineExtensionAmount currencyID="EUR">5750</cbc:LineExtensionAmount>
        <cbc:TotalTaxAmount currencyID="EUR">920</cbc:TotalTaxAmount>
         <cac:Item>
           <cbc:Name> Bloc de notas </cbc:Name>
           <cbc:BrandName>Block</cbc:BrandName>
           <cbc:ModelName>Hemingway</cbc:ModelName>
           <cac:SellersItemIdentification>
              <cbc:ID>ID1226</cbc:ID>
           </cac:SellersItemIdentification>
           <cac:ItemSpecificationDocumentReference>
              <cbc:ID>ID1234</cbc:ID>
                <cbc:IssueDate>2006-05-04</cbc:IssueDate>
```

```
                <cac:Attachment>
                    <cbc:EmbeddedDocumentBinaryObject          mimeCode="application/pdf">Fichero
especificación</cbc:EmbeddedDocumentBinaryObject>
                </cac:Attachment>
            </cac:ItemSpecificationDocumentReference>
            <cac:CommodityClassification>
                <cbc:ItemClassificationCode
                  listURI="http://contrataciondelestado.es/codice/cl/1.04/CPV2007-1.04.gc"
                  listVersionID="2007">22816100</cbc:ItemClassificationCode>
            </cac:CommodityClassification>
            <cac:OfferedItemLocationQuantity>
                <cac:Price>
                    <cbc:PriceAmount currencyID="EUR">5.75</cbc:PriceAmount>
                </cac:Price>
            </cac:OfferedItemLocationQuantity>
        </cac:TenderLine>
```

3.4.2.3 Example of tender with multiple criteria

In this case, call for tenders had several awarding criteria, as shown in 3.3.5.1. There were three criteria for awarding, price with a weighting of 50, quality with a weighting of 30 and delivery time with a weighting of 20.

```
<cac:AwardingTerms>
     <cac:AwardingCriteria>
        <cbc:ID >1</cbc:ID>
        <cbc:AwardingCriteriaTypeCode
           listURI="http://contrataciondelestado.es/codice/cl/2.0/AwardingCriteriaCode-2.0.gc"
listVersionID="2.0">OBJ</cbc:AwardingCriteriaTypeCode>
        <cbc:Description>Precio</cbc:Description>
        <cbc:WeightNumeric >50</cbc:WeightNumeric>
     </cac:AwardingCriteria>
     <cac:AwardingCriteria>
        <cbc:ID>2</cbc:ID>
        <cbc:AwardingCriteriaTypeCode
           listURI="http://contrataciondelestado.es/codice/cl/2.0/AwardingCriteriaCode-2.0.gc"
listVersionID="2.0">SUBJ</cbc:AwardingCriteriaTypeCode>
        <cbc:Description >Calidad</cbc:Description>
        <cbc:WeightNumeric >30</cbc:WeightNumeric>
     </cac:AwardingCriteria>
     <cac:AwardingCriteria>
        <cbc:ID >3</cbc:ID>
        <cbc:AwardingCriteriaTypeCode
           listURI="http://contrataciondelestado.es/codice/cl/2.0/AwardingCriteriaCode-2.0.gc"
listVersionID="2.0" >OBJ</cbc:AwardingCriteriaTypeCode>
        <cbc:Description >Tiempo de entrega</cbc:Description>
        <cbc:WeightNumeric >20</cbc:WeightNumeric>
     </cac:AwardingCriteria>
   </cac:AwardingTerms>
```

In this case, tenderer can create tender defining deliverables and amounts. However, this information must be complemented with a set of AwardingCriteriaResponse components where he sets answers to AwardingCriteria defined in a call for tenders. With these responses, contracting authority can proceed to compare one tender with another. If there are objective criteria, comparison can be made directly through quantifiable elements of the component, while if there are subjective criteria, it can indicate how the criteria should be analyzed.

```
<cac:TenderedProject>
    <cac:TaxTotal>
        <cbc:TaxAmount currencyID="EUR">1702,07</cbc:TaxAmount>
    </cac:TaxTotal>
    <cac:LegalMonetaryTotal>
```

```
        <cbc:LineExtensionAmount currencyID="EUR">10637.93</cbc:LineExtensionAmount>
        <cbc:TaxExclusiveAmount currencyID="EUR ">10637,93</cbc:TaxExclusiveAmount>
        <cbc:TaxInclusiveAmount currencyID="EUR ">12340</cbc:TaxInclusiveAmount>
        <cbc:PayableAmount currencyID="EUR ">12340</cbc:PayableAmount>
    </cac:LegalMonetaryTotal>
    <cac:TenderLine>
        <cbc:ID>1</cbc:ID>

        …. Línea 1 …

    </cac:TenderLine>
    <cac:TenderLine>
        <cbc:ID>2</cbc:ID>

        …. Línea 2 …

    </cac:TenderLine>
    <cac:AwardingCriteriaResponse>
        <cbc:ID>1</cbc:ID>
        <cbc:AwardingCriteriaID>1</cbc:AwardingCriteriaID>
        <cbc:AwardingCriteriaDescription>Precio</cbc:AwardingCriteriaDescription>
        <cbc:Amount currencyID="EUR">10637,93</cbc:Amount>
    </cac:AwardingCriteriaResponse>
    <cac:AwardingCriteriaResponse>
        <cbc:ID>2</cbc:ID>
        <cbc:AwardingCriteriaID>2</cbc:AwardingCriteriaID>
        <cbc:AwardingCriteriaDescription>Calidad</cbc:AwardingCriteriaDescription>
        <cbc:Description>Ver documento de especificaciones técnicas</cbc:Description>
    </cac:AwardingCriteriaResponse>
    <cac:AwardingCriteriaResponse>
        <cbc:ID>3</cbc:ID>
        <cbc:AwardingCriteriaID>3</cbc:AwardingCriteriaID>
        <cbc:AwardingCriteriaDescription>Tiempo de entrega</cbc:AwardingCriteriaDescription>
        <cbc:Description>Cuatro meses</cbc:Description>
        <cbc:Quantity unitCode="MON">4</cbc:Quantity>
    </cac:AwardingCriteriaResponse>
</cac:TenderedProject>
```

3.4.3 Lots

In order to answer to one or more lots in a tender, the ProcurementProjectLotID of TenderedProject must be specified. It must specify the lot identifier as set forth in the call for tenders.

An instance of TenderedProject must be included per each lot.

3.4.3.1 Example of tender with lots

In the following example there are two TenderedProject components in the same Tender document. Two TenderedProject components refer to different lots of the same tender and ProcurementProjectLotID distinguishes them.

```
<cac:TenderedProject>
    <cbc:ProcurementProjectLotID>1</cbc:ProcurementProjectLotID>
    <cac:TaxTotal>
        <cbc:TaxAmount currencyID="EUR"> taxes lot 1 </cbc:TaxAmount>
    </cac:TaxTotal>
    <cac:LegalMonetaryTotal>

    … totals lot 1 …

    </cac:LegalMonetaryTotal>
```

```
  <cac:TenderLine>
       <cbc:ID>1</cbc:ID>

        …. Line 1 lot 1…

    </cac:TenderLine>
    <cac:TenderLine>
       <cbc:ID>2</cbc:ID>

        …. Line 2  lot 1…

    </cac:TenderLine>
    <cac:AwardingCriteriaResponse>
       …. Criterio 1  lote 1…
    </cac:AwardingCriteriaResponse>
       <cac:AwardingCriteriaResponse>
       …. Criterion 2  lot 1…
    </cac:AwardingCriteriaResponse>
</cac:TenderedProject>
<cac:TenderedProject>
  <cbc:ProcurementProjectLotID>2</cbc:ProcurementProjectLotID>
  <cac:TaxTotal>
    <cbc:TaxAmount currencyID="EUR"> taxes lot 2 </cbc:TaxAmount>
  </cac:TaxTotal>
  <cac:LegalMonetaryTotal>

   … totals lot 2 …

  </cac:LegalMonetaryTotal>
  <cac:TenderLine>
       <cbc:ID>1</cbc:ID>

        …. Line 1 lot 2…

    </cac:TenderLine>
    <cac:TenderLine>
       <cbc:ID>2</cbc:ID>

        …. Line 2  lot 2…

    </cac:TenderLine>
    <cac:AwardingCriteriaResponse>
       …. Criterion 1  lot 2…
    </cac:AwardingCriteriaResponse>
       <cac:AwardingCriteriaResponse>
       …. Criterion 2  lot 2…
    </cac:AwardingCriteriaResponse>
</cac:TenderedProject>
```

3.4.4 Variants

If variants are accepted, economic operators may submit tender documents with different Tendered Project, one for each variant.

As described in section above, VariantID element of Tendered Project allows the identification of the different variants of each tender.

In case there was a tender both with lots and variants, both elements ProcurementProjectLotID and VariantID must be reported.

3.4.4.1 Example of tender with variants

In the following example there are two TenderedProject components in the same Tender document. In this case, there are two variants to the same lot, so TenderedProject refer to the same ProcurementProjectLotID but have different associated VariantID.

```xml
<cac:TenderedProject>
    <cbc:ProcurementProjectLotID>1</cbc:ProcurementProjectLotID>
    <cbc:VariantID>1</cbc:VariantID>
    <cac:TaxTotal>
     <cbc:TaxAmount currencyID="EUR"> taxes first variant lot 1</cbc:TaxAmount>
    </cac:TaxTotal>
    <cac:LegalMonetaryTotal>
    … totales first variant lot 1 …
  </cac:LeglMonetaryTotal>
  <cac:TenderLine>
        <cbc:ID>1</cbc:ID>
        …. Line 1 variant 1 lot 1…
    </cac:TenderLine>
    <cac:TenderLine>
        <cbc:ID>2</cbc:ID>
        …. Line 2 variant 1 lot 1…
    </cac:TenderLine>
    <cac:AwardingCriteriaResponse>
        …. Criterion 1 variant 1  lot 1…
    </cac:AwardingCriteriaResponse>
        <cac:AwardingCriteriaResponse>
        …. Criterion 2 variant 1  lot 1…
    </cac:AwardingCriteriaResponse>
  </cac:TenderedProject>
  <cac:TenderedProject>
   <cbc:ProcurementProjectLotID>1</cbc:ProcurementProjectLotID>
   <cbc:VariantID>2</cbc:VariantID>
   <cac:TaxTotal>
    <cbc:TaxAmount currencyID="EUR"> taxes variant 2 lot 1 </cbc:TaxAmount>
    </cac:TaxTotal>
    <cac:LegalMonetaryTotal>
   … totals variant 2 lot 1…
    </cac:LegalMonetaryTotal>
    <cac:TenderLine>
        <cbc:ID>1</cbc:ID>
        …. Line 1 variant 2 lot 1 …
    </cac:TenderLine>
    <cac:TenderLine>
        <cbc:ID>2</cbc:ID>
        …. Línea 2 variante 2 lot 1 …
    </cac:TenderLine>
    <cac:AwardingCriteriaResponse>
        …. Criterion 1 variant 2 lot 1 …
    </cac:AwardingCriteriaResponse>
        <cac:AwardingCriteriaResponse>
        …. Criterion 2 variant 2 lot 1 …
    </cac:AwardingCriteriaResponse>
  </cac:TenderedProject>
```

3.5 Preparation of administrative documents

Tenderer should inform their creditworthiness in response to information contained in the Tenderer Qualification Request component described in paragraph 3.3.4 by creating the electronic Tenderer Qualification document. Economic operators must indicate their technical and

/ or economic capabilities in Tenderer Qualification document for contracting authorities to assess its creditworthiness and to admit or exclude in the bidding process.

Economic operators may include declarative information about their capabilities, and can attach documents or evidences in Tenderer Qualification document for contracting authorities to verify the required statements.

Companies can jointly participate in tenders. In this case they should provide a structure that includes information from all participating companies, such as in the case of subcontracting or project joint ventures.

A Qualifying Party component must be created for each participant in the tender and attach as many documents or evidence as necessary.

Figure below depicts a document of qualification of a company with a subcontractor.
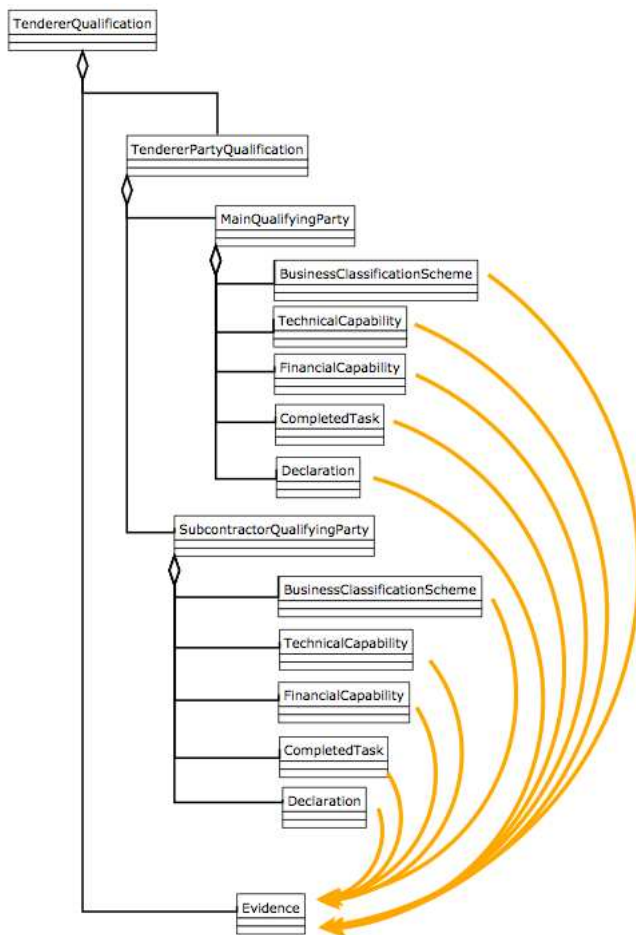
Figure 1 Relationship between declarations and accreditations

Each element declared by a tenderer has a reference to its corresponding Evidence, where relevant supporting evidentiary document can be attached.

3.5.1 Information about economic operators involved in a tender

Tenderer Qualification document has a Tenderer Party Qualification component to describe statements of the tenderers. Elements of Tenderer Party Qualification are:

- **InterestedProcurementLotsID:** Lot for which a bidder shows interest. In a contract with lots, a bidder may not have to submit a tender for all lots. With this element, economic operators indicate contracting authorities to which lots they are interested in, so only partial lot selection criteria should be applied when evaluating tenderer capabilities.

- **MainQualifyingParty:** Structure used to enter information about the Leader. For tenders submitted by a single bidder, this is the only Qualifying Party component to be filled in.

- **ProjectJointVentureQualifyingParty:** If there is a bidding consortium, use various iterations of this component to specify skills of those involved in the project.

- **SubcontractorQualifyingParty:** Finally, information on subcontractors can also be included by using the same Qualifying Party type of element.

3.5.2 Information about abilities of each economic operator involved in the tender

Qualifying Party class is used to describe all the elements of the economic operator required to enable a contracting authority to decide whether it accepts or rejects an economic operator.
It contains the following information:

A. Company Overview

This includes the following general information about the company:

- **ParticipationPercent:** It allows you to specify the percentage of company's participation in the project. It is used when submitted a joint venture or with subcontractors.

- **OperatingYearsQuantity:** Years of experience of economic operators conducting similar activity.

- **EmployeeQuantity:** Number of company employees.

- **BusinessClassificationEvidenceID:** Identifier of the evidence used to prove business classification of economic operators.

- **BusinessIdentityEvidenceID:** It identifies the evidence used to prove corporate identity.

- **BusinessClassificationScheme:** A business classification of economic operator possesses.

- **Party:** Component used to report identification data for the economic operator.

B. Technical and economic capacity

Tenderers shall indicate their capacity for each technical or economic solvency criteria established in the call for tenders.

- **Technical capacity** Economic operators can declare their technical capacity in response to required technical solvency criteria. Each component of technical capacity may be associated with an evidentiary document to facilitate the task of validating the the tenderer's statements . Capability class elements are:

- **CapabilityTypeCode:** Code of technical capacity. The same list of codes used to describe the technical evaluation criteria EvaluationCriteriaTypeCode must be used.

- **Description:** A text description of the capacity.

- **ValueAmount:** Monetary value when the capacity is measured by an amount, such as the value of turnover.

- **ValueQuantity:** Value of the capacity when it is not an amount, such as the number of senior engineers.

- **EvidenceSuppliedID:** Identifier that refers the evidence that justifies or proves ability of the tenderer states to possess.

- **ValidityPeriod:** Period during which the capacity has been maintained.

- **Economic and financial capacity (FinancialCapability)** At the economic level, economic operator can also declare its own capabilities with a Capability component. Capability class elements are:

    - **CapabilityTypeCode:** Code of financial capacity. You must use the same list of codes used to describe the financial evaluation criteria EvaluationCriteriaTypeCode.

    - **Description:** A text description of the capacity.

    - **ValueAmount:** Monetary value when capacity is measured by an amount, such as the value of turnover.

    - **ValueQuantity:** Value of the capacity when it is not an amount, such as the number of senior engineers.

    - **EvidenceSuppliedID:** Identifier that refers to evidence that justifies or proves ability the tenderer states to possess.

    - **ValidityPeriod:** Period during which the capacity has been maintained.

- **Completed Tasks:**

    Contracting authority requires economic operators to indicate its experience in similar projects in order to assess his technical capability, when criterion of technical solvency contains the code for "Completed tasks".

    CompletedTask component helps economic operator to inform about its experience and has the following structure:

    - **AnnualAverageAmount:** average annual amount of such work performed.

    - **TotalTaskAmount:** total annual amount obtained by carrying out such projects.

    - **PartyCapacityAmount:** economic capacity of the organization to run this type of project or supplies.

    - **Description:** A text description of work, project or supply.

    - **EvidenceSuppliedID:** Identifier that refers to evidence that justifies or credits a work experience that the bidder claims to have done.

o **Period:** complex component used to describe the time period during which work was done.

o **RecipientCustomerParty:** complex component identifying the customer receiving the project, service or product.

C. Responsible declarations and specific requirements

Tenderers must declare that they meet specific requirements laid down in call for tenders (Specific Tenders Requirement).

To this end, they must include a declaration (Declaration) for each of the specific requirements.

- **Declaration:** With this component, economic operator may declare circumstances regarding his own situation, and which are required in call for tenders. Statements may contain the following information:
  o **Name:** Descriptive name of the declaration.

  o **DeclarationTypeCode:** Declaration type, coded. In CODICE, code list of statements is the same as the list that defines requirements for bidders, as set out in Tenderer Requirement Type Code in call for tenders.

    Thus, upon receipt of Tenderer Qualification documents, contracting authority can relate statements of tenderers with tender requirements. For this reason, it is recommended that economic operators include a statement for each requirement in the specifications.

  o **Description:** A text description of a statement.

  o **EvidenceSuppliedID:** Identifier that refers to evidence that justifies or proves the statement.

3.5.2.1 Example of tenderer qualification document

Tenderers should prepare qualification documents in accordance with TendererQualificationRequest component in Call For Tenders document.

Example below refers to a tenderer bidding without subcontractors or joint venture. He must meet technical criteria based on experience and quality certificates, as well as financial capacity. As supporting documents, tenderer attached the ROLECE certificate, certificate of annual accounts and a document describing the work performed.

```xml
<cac:TendererPartyQualification>
    <cac:MainQualifyingParty>
      <cac:TechnicalCapability>
<cbc:CapabilityTypeCode
listURI="http://contrataciondelestado.es/codice/cl/2.0/TechnicalCapabilityTypeCode-2.0.gc"
listVersionID="2.0">XSX-CERTCALIDAD</cbc:CapabilityTypeCode>
        <cbc:Description>Se encuentra en posesión de la certificación ISO 9001</cbc:Description>
        <cbc:EvidenceSuppliedID>1<cbc:EvidenceSuppliedID>
      </cac:TechnicalCapability>
      <cac:FinancialCapability>
        <cbc:CapabilityTypeCode
listURI="http://contrataciondelestado.es/codice/cl/2.0/FinancialCapabilityTypeCode-2.0.gc"
listVersionID="2.0">4</cbc:CapabilityTypeCode>
        <cbc:Description>Volumen de negocios de los últimos tres años</cbc:Description>
        <cbc:ValueAmount currencyID="EUR">14820000</cbc:ValueAmount>
        <cbc:EvidenceSuppliedID>2</cbc:EvidenceSuppliedID>
```

```
        </cac:FinancialCapability>
        <cac:CompletedTask>
<cbc:Description>Se han efectuado al tres suministros de similar naturaleza y de cifra superior al
presupuesto de licitación (IVA excluido) del presente contrato</cbc:Description>
          <cbc:EvidenceSuppliedID>3<cbc:EvidenceSuppliedID>
        </cac:TechnicalCapability>
        <cac:Party>
           …Información del licitador …
        </cac:Party>
      </cac:MainQualifyingParty>
    </cac:TendererPartyQualification>

    <cac:Evidence>
      <cbc:ID>1</cbc:ID>
      <cbc:EvidenceTypeCode
listURI="http://contrataciondelestado.es/codice/cl/2.0/EvidenceTypeCode-2.0.gc"
listVersionID="2.0">ROLECE</cbc:EvidenceTypeCode>
      <cbc:Name>Certificado ROLECE</cbc:Name>
      <cac:DocumentReference>
        <cbc:ID>ROL1928188</cbc:ID>
        <cac:Attachment>
          <cac:ExternalReference>

<cbc:URI>http://contrataciondelestado/rolece/903428999832948208300</cbc:URI>
          </cac:ExternalReference>
        </cac:Attachment>
      </cac:DocumentReference>
    </cac:Evidence>
    <cac:Evidence>
      <cbc:ID>2</cbc:ID>
      <cbc:EvidenceTypeCode
listURI="http://contrataciondelestado.es/codice/cl/2.0/EvidenceTypeCode-2.0.gc"
listVersionID="2.0"> XBRLACC</cbc:EvidenceTypeCode>
      <cbc:Name>Certificado cuentas anuales</cbc:Name>
      <cac:DocumentReference>
        <cbc:ID>ACN82</cbc:ID>
        <cac:Attachment>
          <cac:EmbeddedDocumentBinaryObject mimeCode="application/xml">
      …. Fichero cuentas anuales en Base64 …
</cac:EmbeddedDocumentBinaryObject>
        </cac:Attachment>
      </cac:DocumentReference>
    </cac:Evidence>
<cac:Evidence>
      <cbc:ID>3</cbc:ID>
      <cbc:EvidenceTypeCode
listURI="http://contrataciondelestado.es/codice/cl/2.0/EvidenceTypeCode-2.0.gc"
listVersionID="2.0"> DECLAR</cbc:EvidenceTypeCode>
      <cbc:Name>Declaración de trabajos realizados</cbc:Name>
      <cac:DocumentReference>
        <cbc:ID>P3489</cbc:ID>
        <cac:Attachment>
          <cac:EmbeddedDocumentBinaryObject mimeCode="application/xml">
      …. Fichero descriptivo de trabajos realizados en Base64 …
</cac:EmbeddedDocumentBinaryObject>
        </cac:Attachment>
      </cac:DocumentReference>
    </cac:Evidence>
```

3.5.3 Documentary evidence (Evidence)

Qualifying Party structure contains economic operator's own statements about capabilities.

To prove these statements, he can attach a set of documents using the Evidence structure, where he can add metadata and embed in the document itself or reference it by a URL.

As seen in previous sections, for each of the items indicated in the call for tenders (identity, capabilities, classification, statements) economic operator can set a reference to relevant documentary evidence.

Evidence component has the following data:

- **ID:** Identifier of evidence document. It serves as a reference to EvidenceSuppliedID.

- **LanguageCode:** Code specifying the language of the document.

- **EvidenceTypeCode:** Type of evidence code, such as statement, certificate, Social Security, etc.

- **Name:** Name of the statement.

- **EvidenceIssuingParty:** Issuer body of the evidence.
- **DocumentReference:** Complex component that allows a document to be embedded as a binary object, or referenced using an external URL.

    o **EmbededDocumentBinaryObject:** Placeholder to encode a document in Base64.

    o **ExternalReference:** URL where the original document can be found.

3.5.4 Using Certificate of Official Register of Tenderers and Classified Companies

Documentary evidence in Spain may be the Spanish Certificate of Registration of Tenderers and Classified Companies. Official Registry of Tenderers and Classified Companies is the body where economic operators can pre-register their technical and economic capabilities to simplify the process of qualification in tendering procedures.

Pre-registration simplifies the administrative burden on economic operators as it prevents to issue a qualification document for each tendering process.

To use this Certificate as a documentary proof of evidence, it should be incorporated in the TendererQualification document as seen in example 3.5.2.1.

Bidders may choose to attach the document as an EmbeddedDocumentBinaryObject component or refer to it using the URL in the component External Reference.

3.6 Admission and exclusion of tenderers

The jury, based on the contents of the envelope with administrative information and its comparison with established requirements for tenderers in call for tenders, does admit or exclude economic operators to the tendering process.

When evaluating Tenderer Qualification documents we can establish two different phases:

- A first phase, **statement analysis,** should take into account only statements of economic operators, without access to supporting documents (evidences). At this stage elements set out in each Qualifying Party in Tenderer Qualification document is compared with requirements defined in Tenderer Qualification Request component of Call For Tenders document to verify that the economic operator complies with all requirements in the call for tenders.

- A second phase is related with **verification of declarations** stated by economic operators. At this stage, evidentiary documents identified in each statement are opened and its contents are compared with metadata established in the Tenderer Qualification document.

Following this approach, systems may offer decision support for contracting authorities when evaluating received tenders. This system can verify if details declared by a tenderer conform to requirements indicated in the call for tenders. Thus, the system can show evidentiary documents proving each of the conditions stated in tenderers documentation.

Each EU Member States may require different evidences to demonstrate compliance with a particular requirement. This dual way of evaluation allows the jury to assess the statement analysis even for foreign companies.

3.6.1 Analysis of tenderer's statements

Statement analysis phase can be semi-automated with CODICE documents through the following comparisons:

A. Company Overview

It should be verified that values declared by a company regarding its number of employees, and years of experience are higher than those required in the call for tenders.

CallForTenders TendererQualificationRequest	TendererQualification QualifyingParty	
cbc: OperatingYearsQuantity	cbc: OperatingYearsQuantity	Required years of experience versus years of experience provided in the exercise of the activity.
cbc: EmployeeQuantity	cbc: EmployeeQuantity	Employees required and provided for the implementation of a project respectively.

B. Technical and economic capacity

B.1 Verification of business classification

Compare the contents of "Required Business Classification Scheme" element in call for tenders with "Business Classification Scheme" in the document of qualification (TendererQualification) submitted by a tenderer in the envelope of administrative documentation.

Metadata of classification scheme in both documents must match in order to prove that the same group and subgroup codes and category are used in the call for tenders and in the qualification document .

Call For Tenders may have multiple instances of the Category Classification structure for a single classification scheme, described by RequiredBusinessClassificationScheme component. Each ClassificationCategory must have a CodeValue that indicates the classification required. Spanish

classification scheme of companies uses this CodeValue as a concatenation of three elements, group, subgroup and category. Each of the three elements is a single digit.

It is established as follows:

- Three digits: Group, Subgroup and Category
- Two digits: Group, Subgroup
- A digit: Group

Tenderer qualification must establish precise Classification Category repetitions, always with three digits, ie, group, subgroup and category.

CodeValue element of Classification Category in the document produced by economic operators should be compared with the same element in call for tenders. CodeValue is used as the location for the group, subgroup and category identifier, so comparison with CodeValue in the call for tenders can be of various kinds.

- **Case 1:** Call for Tenders requires a complete classification consisting of a group, a subgroup and a category. In this case it has to be checked that tenderer qualification includes a classification whose Group and Subgroup matches the ones required, and whose Category is equal or greater than the one required in the call for tenders.

- **Case 2:** Call for Tenders requires several classifications Group + Subgroup + Category. The same comparison as in Case 1 should be performed for all classifications required in the call for tenders.

- **Case 3:** Call for Tenders requires the classification in a Group. Tenderer Qualification document must have a complete classification included in this Group.

- **Case 4:** Call for Tenders requires the classification in a Group and a Subgroup. Tenderer Qualification document must include a classification for this group and subgroup.

B.2 Verification of compliance with criteria of solvency

Comparing the contents of "Evaluation Criteria" elements in Call for Tenders with "Capability" elements in document of qualification (TendererQualification) submitted by the tenderer.

In this case, when receiving qualification documents, contracting authorities must verify that all criteria for evaluating technical and economic solvency have been answered using a declared capacity.

For those criteria with numerical or monetary thresholds, declared capacity values can be compared with the threshold identified in the evaluation criteria. For example, if a technical solvency criterion requires that the company must have more than 5 senior engineers, the technical capacity declared by a tenderer will be analyzed in order to see if the number of graduates reported is greater than 5.

- Verification of completed tasks (CompletedTask)

If there is a technical evaluation criteria in Call for Tenders requiring "Completed Tasks", tenderers shall provide information about their experience with the component Completed Task.

In this case, evaluators will assess whether the experience declared by this component meets the experience required by technical solvency criterion by means of manual processing.

EvaluationCriteria	Capability	
cbc:EvaluationCriteriaTy	cbc: CapabilityTypeCode	Code used in CapabilityTypeCode should

peCode		be the same as the code used in EvaluationCriteriaTypeCode. If experience is required, tenderer should use the component Completed Task
cbc: Description	cbc: Description	Descriptive fields that are not systemically compared.
cbc: ThresholdAmount	cbc: ValueAmount	ValueAmount must be smaller or larger than ThresholdAmount depending on the value of ExpressionCode. If maximum, ValueAmount should be lower and if minimum it should be higher.
cbc: ThresholdQuantity	cbc: ValueQuantity	ValueQuantity must be smaller or larger than ThresholdQuantity depending on the value of ExpressionCode. If maximum, ValueQuantity should be lower and if minimum it should be higher.
cbc: Expression		Text field not used to compare requirements with capacities declared.
cbc: ExpressionCode		Code that lets handle the threshold amount or quantity properly.
DurationPeriod	ValidityPeriod	It compares period classes. If there is no match, a warning should be given.
SuggestedEvidence	cbc: EvidenceSuppliedID	Pointer to the evidence provided by the tenderer. It could be among the evidences suggested by the contracting authority, but it does not affect the comparison.
	Completed Task	***If there are experiences, comparisons must be made manually***
	cbc: AnnualAverageAmount	
	cbc: TotalTaskAmount	
	cbc: PartyCapacityAmount	
	cbc: Description	
	cbc: EvidenceSuppliedID	Pointer to the evidence provided by the tenderer. It could be among the evidence suggested by the contracting authority, but it does not affect the comparison.
	Period	
	RecipientCustomerParty	

B.3 <u>Self-declarations and fulfilment of specific requirements</u>

Comparing "SpecificTendererRequirement" in Call for Tenders with "Declaration" in qualification document (TendererQualification) submitted by a tenderer in the envelope of administrative documentation.

Contracting authorities must verify that all specific requirements for a bidder have been met with a declaration in the Tenderer Qualification. It is possible to compare both structures through their code, RequirementTypeCode in call for tenders and DeclarationTypeCode in tenderer qualification.

Besides the explicit statement of compliance with requirements, tenderer can provide electronic evidences and reference them through the use of EvidenceSuppliedID reference identifier.

SpecificTendererRequirement	*Declaration*	

cbc: Name	cbc: Name	
cbc: RequirementTypeCode	cbc:DeclarationTypeCode	Codes in DeclarationTypeCode and RequirementTypeCode should share the same code list.
cbc: Description	cbc: Description	
SuggestedEvidence	cbc: EvidenceSuppliedID	Pointer to the evidence provided by tenderers could be among those evidences suggested by contracting authorities, but it does not affect the comparison.

3.7 Tender Evaluation

CODICE 2.0 main objective is to facilitate electronic procurement, namely to allow bidders to submit tenders electronically to a call for tenders, endowing contracting authorities with support elements for evaluation of these electronic bids.

Evaluation of received tenders goes through comparison of different elements from electronic tenders (Tender) introduced by tenderers and in response to required specifications stated in technical requirements document and administrative clauses.

To compare these tenders several points should be considered:

- Contracting authority must identify in a call for tenders every element to which tenderers should submit a tender and criteria used for awarding.

- Each bidder must create a tender document to identify products or services that meet deliverables defined in call for tenders. The bidder must also provide answers to awarding criteria set out in the same call for tenders.

- Contracting authority must open all received tenders and be able to compare them according to criteria established in call for tenders.

3.7.1 Evaluation Process

Tender evaluation process starts after tender reception deadline. This section focuses on tender evaluation process that is likely to be systematized. It leaves aside the assessment processes that require establishment of an expert committee whose members start reading tender documents and performing subjective assessment.

Evaluation process is intended to allow management of received tenders in a systemic way, as an aid or support to contracting authorities in their evaluation and awarding function.

Therefore, the cases that we have in mind when detailing how assessment of tenders are as follows:

- Lump sum tender award process.

- Unit prices tender award process.

- Tendering process with multiple awarding objective criteria.

If awarded by multiple criteria with subjective criteria, expert committee should perform a first evaluation of these subjective criteria and then analyze objective criteria as described in last point below.

- **CASE 1: Lump sum tender award**

Bids will be ranked based on total amounts offered for the whole contract.

Tenders of economic operators may have a single Tendered Project component when tendering for projects without lots or more than one Tendered Project when tendering for several lots.
If there are no lots, system of awarding must compare the Tendered Project from received Tender documents of all tenderers. Elements TenderedProject / LegalMonetaryTotal / PayableAmount from different tenders must be compared, taking into account their currency (currencyID attribute) to identify the most advantageous tender from an economical point of view. If there are lots, comparison will be made at Lot level, establishing a sorted list of tenders for each lot. To identify a lot within a Tendered Project, element ProcurementProjectLotID must be used.

If call for tenders establishes a low tender exclusion criteria, it is necessary to check that this criterion is not met before awarding the contract.

- **CASE 2: Unit prices tender award**

In case of award by unit prices:

1. First, it must be verified that each offered unit price is lower or equal to the maximum unit price quoted in the call for tenders.

2. Then a total price is calculated based on unit prices and required quantities, which will sort all the bids.

To do this, there will be a weighted sum of unit prices offered for each deliverable, weighted using quantities required in the call for tenders.

Below there is an example of two bids for an award using unit prices and three deliverables:

1. Calculation of total amount of tenders

TENDER 1	Quantity required on Call for Tenders	Unit Price offered	Weighted Price
Deliverable 1	100	15	1500
Deliverable 2	25	60	1500
Deliverable 3	50	90	4500
TOTAL AMOUNT			**7500**

TENDER 2	Quantity required on Call for Tenders	Unit Price offered	Weighted Price
Deliverable 1	100	8	800
Deliverable 2	25	80	2000
Deliverable 3	50	90	4500
TOTAL AMOUNT			**7300**

2. Sorting offers

		Unit Price Deliverable 1	Unit Price Deliverable 2	Unit Price Deliverable 3	TOTAL AMOUNT
	TENDER 2	8	80	90	**7300**

1.					
2	TENDER 1	15	60	90	**7500**

- **CASE 3: Tender award by multiple criteria**

Tenders will be evaluated at different stages depending on the presence or absence of criteria for the award subject to value judgments.

1. If there are evaluation criteria subject to value judgments (subjective criteria), tender envelope with tender defining subjective criteria will be first opened and evaluated, giving a specific score to each tender for every subjective criteria.

2. Tenders may automatically be rated for each objective award criteria if electronic call for tenders had all the information needed to fulfill the process.

   The algorithm used to calculate the score of tenders for each criteria depends on the value of AwardingCriteria / CalculationExpressionCode. This algorithm sets how to calculate a tender criterion standardized score based on the values offered by all participants, and the maximum and minimum established in the call for tenders.
   Scoring for total amount uses the same methodology, where total amount is calculated as described above in cases 1 (lump sum) or 2 (unit prices)

3. Calculation of the total score for the bid. From the normalized scores for each criteria total score can be calculated by a tender by using the sorting algorithm described in item AwardingTerms / WeightingAlgorithmCode and weighting of each criteria (AwardinCriteria / WeightNumeric)

Below there is an example of evaluating tenders with multiple criteria:

- Award criteria laid down in call for tenders:

Type of criteria	Description	Weighing	Normalization algorithm	Minimum value	Maximum value
Price	Price	40	Fraction of ideal minimizer	- -	- -
Objective	Quantity	15	Fraction of ideal maximizer	6	10
Objective	Availability (%)	15	Fraction of ideal maximizer	90	100
Objective	MTBF (minutes)	10	Fraction of ideal maximizer	10 000	- -
Subjective	Planning quality	10	- -	- -	- -
Subjective	Qualified Personnel	10	- -	- -	- -

- Tender values

Criterion	Tender 1	Tender 2
Price	€ 100,000	€ 120,000
Quantity	6	8
Availability (%)	95	99
MTBF (minutes)	15	25
Planning Quality	Is assessed by value judgments	
Qualified Personnel	Is assessed by value judgments	

1. Scores evaluated by value judgments by the experts committee

Tender	Planning Quality	Qualified Personnel
Tender 1	1	0.75
Tender 2	0.9	1

2. Automated evaluation of price and objective award criteria

First it has to be considered which is the normalization method of scores for each criterion. This example uses the fraction of the ideal method for all criteria.

Fraction of the ideal is:

o If maximizer: standard score is 1 for the best alternative for this criterion and also for these tenders whose criterion is equal to or greater than the maximum value; 0 for those who are below the minimum value and the value obtained by linear interpolation for intermediate alternatives.

o If minimizer: standard score is 1 for the best alternative for this criterion and also for these tenders which criterion is equal or below the minimum value, 0 for those who are above the maximum value and the value obtained by linear interpolation for intermediate alternatives. If criterion is the price, the maximum value is the estimated budget amount.

Thus the score for each objective criteria is calculated as follows:

Criterion	Tender 1	Tender 2	Scoring function
Price (considering estimated budget amount of 130.000)	€ 100,000 / 100,000 = 1	1 - (120.000-100.000) / (130.000/100.000) = 0.33	
Quantity	(6-6) / (8-6) = 0	8 / 8 = 1	
Availability (%)	(95-90) / (99-90) = 0.56	99/99 = 1	
MTBF (minutes)	20000/20000 = 1	(20000-15000) / (20000-10000) = 0.5	

3. Calculation of the total score and sorting of tenders
   Assuming that AwardingTerms / WeightingAlgorithmCode indicates that the method of sorting of tenders is linear weighting.Score calculation and sorting of tenders would be conducted as follows.

Description	Weighing	Tender 1	Tender 2
Price	40	1	0.33 -
Quantity	15	0	1
Availability (%)	15	0.56	99
MTBF (minutes)	10	1	0.5
Planning Quality	10	1	0.9 -
Qualified Personnel	10	0.75	1

TOTAL (weighted sum)	100	75.9	67.2

3.8 Notice to tenderers and publication of contract award notice

Awarding process is completed when contracting authority selects the best tender according to awarding criteria in the call for tenders. Once selected the best tender, contracting authority should notify the successful tenderer and publish the contract award notice in order to provide transparency and information to non-awarded tenderers for them to appeal in case of disagreement.

In CODICE there are three separate documents to report an award:

- Contract award notice to publish the result of the process in public platforms or in official journals.

- Notice to successful tenderer allows the contractor to be informed of next steps that must be performed until final award.

- Notification to unsuccessful bidders allows them to be informed about amounts awarded and possibility of appeal.

The most important components in notification documents are:

- **ContractFolderID:** Contract File Number

- **MinutesDocumentReference:** It must contain minutes of the awarding process.

- **Procurement Project:** Information about the original project as defined in the call for tenders.

- **Procurement Project Lot:** A repetition for each lot, as described in the call for tenders.

- **Tender Result:** Component used to specify results of an awarding. For each lot to award a Tender Result component must be created. Main elements of Tender Result component are:

   o **Result Code:** It may be awarded provisionally, finally or declared void.

   o **Award Date:** Awarding date. It is mandatory.

   o **Winning Party:** Contractor's description .

   o **Awarded Tendered Project:** Tendered Project item on the Tender document provided by the tenderer, which has been awarded in the process.

Notification documents have different elements depending on whether they are addressed to the contractor or to non-awarded tenderers.

Main items on the notice to a contractor are:

- **ContractFolderID:** Contract File Number

- **MinutesDocumentReference:** It must contain the minutes of the awarding process.

- **Tender Result:** As in the contract award notice, this component is used to specify the results of the awarding. For each lot to award a Tender Result component must be created.

- **FinalFinancialGuarantee:** Information about the final guarantee that should be constituted by the contractor.

Tenderers who have not been awarded in the process should receive a notification whose relevant elements are:

- **ContractFolderID:** Contract File Number

- **MinutesDocumentReference:** It must contain the minutes of the awarding process.

- **Tender Result:** As in the contract award notice, this component is used to specify the results of the awarding. For each lot to award a Tender Result component must be created.

- **Appeal Terms:** Information on the method of appeal presentation .

3.8.1 Award to a single contractor

Award a full contract or a lot to a single tenderer is the most usual case. In this case, it is required to create a single Tender Result for each lot (or for the full project) and each Tender Result contains the Awarded Tendered Project with a copy of the Tendered Project from the successful tenderer.

3.8.1.1 Example of a contract award notice to a single contractor

In the example below we see a fragment of a contract award notice without lots awarded to a single contractor.

```
….
<cac:ProcurementProject >
    <cbc:Name>Ejecucion del programa</cbc:Name>
    <cbc:TypeCode
            languageID="es"
            listURI="http://contrataciondelestado.es/codice/cl/1.04/ContractCode-1.04.gc"
            listVersionID="2006"
            name="Administrativo especial">7</cbc:TypeCode>
    <cac:BudgetAmount >
      <cbc:TotalAmount currencyID="EUR">42000</cbc:TotalAmount>
      <cbc:TaxExclusiveAmount currencyID="EUR">38000</cbc:TaxExclusiveAmount>
    </cac:BudgetAmount>
    <cac:RequiredCommodityClassification >
      <cbc:ItemClassificationCode >85310000</cbc:ItemClassificationCode>
    </cac:RequiredCommodityClassification>
  </cac:ProcurementProject>
  <cac:TenderResult >
        <cbc:ResultCode
                languageID="es"
                listURI="http://contrataciondelestado.es/codice/cl/1.05/TenderResultCode-1.05.gc"
                listVersionID="1.05"
                name="Adjudicado Definitivamente">2</cbc:ResultCode>
        <cbc:Description >Decreto de Alcaldía</cbc:Description>
        <cbc:AwardDate >2009-12-31+01:00</cbc:AwardDate>
        <cac:WinningParty>
                <cac:PartyIdentification>
                    <cbc:ID schemeName="CIF">G48xxxx748</cbc:ID>
```

```
                    </cac:PartyIdentification>
                    <cac:PartyName>
                        <cbc:Name >ASOCIACION xxxxx</cbc:Name>
                    </cac:PartyName>
         </cac:WinningParty>
         <cac:AwardedTenderedProject >
             <cac:LegalMonetaryTotal>
                 <cbc:TaxExclusiveAmount currencyID="EUR">36107</cbc:TaxExclusiveAmount>
                 <cbc:PayableAmount currencyID="EUR">36107</cbc:PayableAmount>
             </cac:LegalMonetaryTotal>
         </cac:AwardedTenderedProject>
    </cac:TenderResult>
```

3.8.2 Award to multiple bidders

A special case of awarding takes place when a contract or lot is awarded to multiple tenderers. This case is typical when establishing a framework agreement or a dynamic purchasing system, where no single contractor but some economic operators become part of a system for subsequent repetitive purchases.

3.8.2.1 Example of multi-awarding

In this fragment we see the award of the same lot to two different tenderers. This case is usual in the establishment of framework agreements. Lot 13 was awarded to two companies, Integrated Services, Inc., and Seconds Services SA, for different prices. Each award is described in its corresponding TenderResult and the Procurement Project Lot ID in the Awarded Tendered class identifies the lot.

```
…
<cac:ProcurementProjectLot >
    <cbc:ID schemeName="ID_LOTE">22</cbc:ID>
    … description lot 22 …
</cac:ProcurementProjectLot>
<cac:ProcurementProjectLot >
    <cbc:ID schemeName="ID_LOTE">13</cbc:ID>
… description lot 13 …
</cac:ProcurementProjectLot>
 <cac:TenderResult >
    <cbc:ResultCode
            languageID="es"
            listURI="http://contrataciondelestado.es/codice/cl/1.05/TenderResultCode-1.05.gc"
            listVersionID="1.05"
            name="Adjudicado Definitivamente">2</cbc:ResultCode>
    <cbc:Description >Resolución por la que se acuerda adjudicar definitivamente
        ….</cbc:Description>
    <cbc:AwardDate >2009-12-18+01:00</cbc:AwardDate>
    <cbc:AwardTime >00:00:00+01:00</cbc:AwardTime>
    <cac:WinningParty>
        <cac:PartyIdentification>
          <cbc:ID
            schemeName="CIF">A80xx243</cbc:ID>
        </cac:PartyIdentification>
        <cac:PartyName>
          <cbc:Name > Integrated Services, Inc.</cbc:Name>
        </cac:PartyName>
        <cac:PhysicalLocation>
          <cac:Address>
            <cbc:CityName >Madrid</cbc:CityName>
            <cbc:PostalZone >28020</cbc:PostalZone>
            <cac:AddressLine>
                <cbc:Line >Calle Orense 16</cbc:Line>
```

```
                    </cac:AddressLine>
                    <cac:Country>
                       <cbc:IdentificationCode
                                    languageID="es"
                                    listURI="http://docs.oasis-open.org/ubl/os-ubl-
2.0/cl/gc/default/CountryIdentificationCode-2.0.gc"
                                    listVersionID="0.3"
                                    name="España">ES</cbc:IdentificationCode>
                       <cbc:Name >España</cbc:Name>
                    </cac:Country>
                 </cac:Address>
              </cac:PhysicalLocation>
          </cac:WinningParty>
       <cac:AwardedTenderedProject >
          <cbc:ProcurementProjectLotID
                          schemeName="ID_LOTE">13</cbc:ProcurementProjectLotID>
          <cac:LegalMonetaryTotal>
             <cbc:TaxExclusiveAmount currencyID="EUR">491.56</cbc:TaxExclusiveAmount>
             <cbc:PayableAmount currencyID="EUR">570.21</cbc:PayableAmount>
          </cac:LegalMonetaryTotal>
       </cac:AwardedTenderedProject>
     </cac:TenderResult>
     <cac:TenderResult >
       <cbc:ResultCode
                  languageID="es"
                  listURI="http://contrataciondelestado.es/codice/cl/1.05/TenderResultCode-1.05.gc"
                  listVersionID="1.05"
                  name="Adjudicado Definitivamente">2</cbc:ResultCode>
       <cbc:Description >Resolución por la que se acuerda adjudicar definitivamente
...</cbc:Description>
       <cbc:AwardDate >2009-12-18+01:00</cbc:AwardDate>
       <cbc:AwardTime >00:00:00+01:00</cbc:AwardTime>
       <cac:WinningParty>
          <cac:PartyIdentification>
             <cbc:ID schemeName="CIF">A8244xxx3</cbc:ID>
          </cac:PartyIdentification>
          <cac:PartyName>
             <cbc:Name > Seconds Services SA </cbc:Name>
          </cac:PartyName>
       </cac:WinningParty>
       <cac:AwardedTenderedProject                                                   >
          <cbc:ProcurementProjectLotID
                            schemeName="ID_LOTE">13</cbc:ProcurementProjectLotID>
          <cac:LegalMonetaryTotal>
             <cbc:TaxExclusiveAmount
                         currencyID="EUR">501.26</cbc:TaxExclusiveAmount>
             <cbc:PayableAmount
                      currencyID="EUR">581.46</cbc:PayableAmount>
          </cac:LegalMonetaryTotal>
       </cac:AwardedTenderedProject>
     </cac:TenderResult>
     <cac:TenderResult >

... another winner for lot 13 ...

     </cac:TenderResult>
...
```

3.9 Constitution of guarantees

3.9.1 Issuing guarantees

Guarantee document constitutes a basic document for streamlining the processes of creation, presentation and verification of the powers of attorneys of guarantees.

The most relevant elements in a Guarantee document are:

- **GuarantorParty.** Guarantor, issuing financial institution. Guarantor information must be sent with information from the trustees of the financial institution or insurance company to sign the guarantee.

  - **Powers of Attorney**

  Power of Attorney class has the following components that allow their verification:

    - **ID** Identifier for an agent code

    - **IssueDate** Date of issuance

    - **Description** A text description.

    - **NotaryParty** Notary issuer of a power of attorney.

    - **AgentParty.** Proxy data (name, address, identifiers, ...)

    - **MandateDocumentReference.** It is possible to attach a power of attorney document.

- **InterestedParty.** Guaranteed, provisional contractor, economic operator who guarantees the sale of products, services or works.

- **BeneficiaryParty** Beneficiary, in electronic tendering it is a contracting authority.

- **ContractFolderID.** Contract file Number for which a security is lodged.

- **Purpose.** Purpose of security, in e-procurement It should identify a contract and a file number.

- **GuaranteeTypeCode.** Type of guarantee (provisional or final)

- **LiabilityAmount.** Security amount

- **IssueDate.** Date of issuance of a guarantee

- **ApplicablePeriod.** Period covered by a guarantee.

- **ConstitutionCode.** Constitution method of a guarantee, which can be in cash, through bond insurance, with immobilization of securities or investment funds.

- **ImmobilizedSecurity.** If constituted through immobilization of securities or investment funds, more detailed information is required. ImmobilizedSecurity class allows for providing more detail about this:

  - **ImmobilizationCertificateID.** Certificate number of immobilization

  - **SecurityID.** ISIN Code

  - **IssueDate.** Date of immobilization

  - **FaceValueAmount.** Nominal value. Total of what is immobilized.

- o **MarketValueAmount** Realization value is a nominal value by an average rate on the date of completion. Realizable value resulting from this calculation should be equal to or greater than the value requested in a 105%.

    - o **SharesNumberQuantity.** Number of titles

    - o **IssuerParty.** Issuing Body

- **ApplicableRegulation.** Applicable regulation. Rules that impose the creation of a guarantee.

    - o **Name:** Name or identifier of the law.

    - o **LegalReference:** Legal reference, article, chapter or paragraph where the relevant legal reference.

    - o **OntologyURI:** A URI where to find relevant legislation.

    - o **Note.** Clauses

3.9.1.1 Example of guarantee provided by endorsement

Below there is an example of a Spanish guarantee provided by endorsement:

GUARANTEE

File number: INAP_14-12-2009

Purpose: IT services to support infrastructure systems in the INAP

Tendering procedure: Open

Financial institution Caja de Ahorros de Madrid, with CIF 000701048, and address for notices and demands in C/ Atocha 1, 28001 Madrid and on its behalf Pedro Muñoz Muñoz with NIF 01361366F with sufficient powers to compel in this act, as appears from evaluation of powers outlined in the bottom of this document,

GUARANTEES: INFORMÁTICA ACME, S.A, with CIF/NIF B82387770, a **provisional** guarantee, under the provisions of Law 30/2007, dated 30 October, Public Sector Contracts (Articles 83-91) to fulfill the following obligations: Participation in tendering INAP/Abierto/14-12-2009, for the beneficiary Instituto Nacional de la Administración Pública, an amount of: **FIVE THOUSAND EUROS 5.000,00 €**.

The guarantor declares under its responsibility, meeting the requirements of Article 56.2 of the General Rules of the Law on Public Sector Contracts.

This guarantee is granted jointly in respect to the principal, expressly waiving the benefit of discussion and commitment to pay the first requirement of **Instituto Nacional de la Administración Pública** or equivalent body of other public authorities, subject to the terms stipulated in the contract law of Public Administration, in its implementing rules and the rules regulating the Caja General de Depósitos.

This guarantee will remain in force until the Instituto Nacional de la Administración Pública or anyone on its behalf legally authorized to do so, authorizes their cancellation or refund under the provisions of the Law on Public Sector Contracts and complementary legislation.

Madrid, December 14, 2009

Caja de Ahorros de Atocha

Signatory: Pedro Muñoz Muñoz

Evaluation of power done by the Asesoría Jurídica de la C.G.D. o Abogacía del Estado		
Province	Date	Number or code
Caja Gral. de Depósitos	11/05/2008	177/00

```xml
<?xml version="1.0" encoding="UTF-8"?>
<gc:Guarantee
 xmlns:ext="urn:oasis:names:specification:ubl:schema:xsd:CommonExtensionComponents-2"
 xmlns:cbc="urn:dgpe:names:draft:codice:schema:xsd:CommonBasicComponents-2"
xmlns:udt="urn:un:unece:uncefact:data:specification:UnqualifiedDataTypesSchemaModule:2"
 xmlns:cac="urn:dgpe:names:draft:codice:schema:xsd:CommonAggregateComponents-2"
 xmlns:gc="urn:dgpe:names:draft:codice:schema:xsd:Guarantee-2"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
   <cbc:UBLVersionID>2.1</cbc:UBLVersionID>
   <cbc:CustomizationID>CiP 2.0</cbc:CustomizationID>
   <cbc:ID>INAP_14-12-2009</cbc:ID>
   <cbc:ContractFolderID>INAP/Abierto/14-12-2009</cbc:ContractFolderID>
   <cbc:IssueDate>2009-12-14</cbc:IssueDate>
   <cbc:GuaranteeTypeCode  listURI="http://contrataciondelestado.es/codice/cl/1.04/GuaranteeTypeCode-
1.04.gc" listVersionID="2006">1</cbc:GuaranteeTypeCode>
   <cbc:Purpose>Servicios de carácter informático para el soporte de la infraestructura de
sistemas y servicios del INAP</cbc:Purpose>
   <cbc:LiabilityAmount currencyID="EUR">5000</cbc:LiabilityAmount>
   <cbc:ConstitutionCode
listURI="http://contrataciondelestado.es/codice/cl/1.04/GuaranteeConstitutionTypeCode-1.04.gc"
listVersionID="2006">2</cbc:ConstitutionCode>
   <cbc:Note>
      La entidad avalista declara bajo su responsabilidad, que cumple los requisitos previstos en el artículo
56.2 del Reglamento General de la Ley de Contratos de las Administraciones Públicas.
      Este aval se otorga solidariamente respecto al obligado principal, con renuncia expresa al beneficio
de excusión y con compromiso de pago al primer requerimiento del Instituto Nacional de la Administración
Pública u órgano equivalente de las restantes Administraciones Públicas, con sujeción a los términos
previstos en la legislación de contratos de las Administraciones Públicas, en sus normas de desarrollo y en
la normativa reguladora de la Caja General de Depósitos.
   </cbc:Note>
   <cac:ApplicablePeriod>
     <cbc:Description>
        El presente aval estará en vigor hasta que el Instituto Nacional de la Administración Pública o
quien en su nombre sea habilitado legalmente para ello autorice su cancelación o devolución de acuerdo
con lo establecido en la Ley de Contratos del Sector Público y legislación complementaria.
     </cbc:Description>
   </cac:ApplicablePeriod>
   <cac:ApplicableRegulation>
     <cbc:Name>Ley 30/2007, del 30 de octubre, de Contratos del Sector Público (artículos 83 a
91)</cbc:Name>
   </cac:ApplicableRegulation>
   <cac:GuarantorParty>
     <cac:PartyIdentification>
       <cbc:ID>000701048</cbc:ID>
     </cac:PartyIdentification>
     <cac:PartyName>
       <cbc:Name>Caja de Ahorros de Madrid</cbc:Name>
     </cac:PartyName>
     <cac:PostalAddress>
       <cbc:CityName>Madrid</cbc:CityName>
```

```
                <cbc:PostalZone>28001</cbc:PostalZone>
              <cac:AddressLine>
                <cbc:Line>C/ Atocha 1</cbc:Line>
              </cac:AddressLine>
              <cac:Country>
                <cbc:IdentificationCode                    listURI="http://docs.oasis-open.org/ubl/os-ubl-
2.0/cl/gc/default/CountryIdentificationCode-2.0.gc" listVersionID="0.3">ES</cbc:IdentificationCode>
              </cac:Country>
            </cac:PostalAddress>
            <cac:PowerOfAttorney>
              <cbc:ID>177/00</cbc:ID>
              <cbc:IssueDate>2008-05-11</cbc:IssueDate>
              <cbc:Description>Caja Gral. de Depósitos</cbc:Description>
              <cac:NotaryParty>
                <cac:PartyName>
                  <cbc:Name> Asesoría Jurídica de la C.G.D o Abogacía del Estado </cbc:Name>
                </cac:PartyName>
              </cac:NotaryParty>
              <cac:AgentParty>
                <cac:PartyIdentification>
                  <cbc:ID schemeID="NIF">01361366F</cbc:ID>
                </cac:PartyIdentification>
                <cac:PartyName>
                  <cbc:Name>Pedro Muñoz Muñoz</cbc:Name>
                </cac:PartyName>
              </cac:AgentParty>
            </cac:PowerOfAttorney>
        </cac:GuarantorParty>
        <cac:InterestedParty>
          <cac:PartyIdentification>
            <cbc:ID schemeID="CIF">B82387770</cbc:ID>
          </cac:PartyIdentification>
          <cac:PartyName>
            <cbc:Name>INFORMÁTICA ACME, S.A</cbc:Name>
          </cac:PartyName>
        </cac:InterestedParty>
        <cac:BeneficiaryParty>
          <cac:PartyIdentification>
            <cbc:ID schemeID="CIF">Q2811002A</cbc:ID>
          </cac:PartyIdentification>
          <cac:PartyName>
            <cbc:Name>Instituto Nacional de la Administración Pública </cbc:Name>
          </cac:PartyName>
        </cac:BeneficiaryParty>
</gc:Guarantee>
```

3.9.1.2 Example of guarantee provided by bond insurance

Below there is an example of a security made in the form of a Spanish bond insurance certificate.

BOND CERTIFICATE OF INSURANCE

File number INAP/Abierto/14-12-2009

Purpose: IT services to support infrastructure systems in the INAP

Tendering procedure: Open

Certificate number 000000001

Seguros de Caución, S.A. (hereinafter the insurer), residing in C/ Atocha, 2, 28001 Madrid and CIF A6280005F, duly represented by don Pedro Muñoz Muñoz, with NIF 00111524S with sufficient powers to compel in this act, as appears from evaluation of powers outlined in the bottom of this document,

 ASSURES ATOCHA COMPUTERS, S.A., with CIF/NIF A79178653, in respect of the policyholder, to the Instituto Nacional de la Administración Pública, hereafter insured, to the extent of **FIVE THOUSAND EUROS 5.000,00 €**, in the terms and conditions set forth in the Law 30/2007, dated 30 October, Public Sector Contracts, policy development and special administrative clauses governing the contract INAP/Abierto/14-12-2009 IT services to support infrastructure systems in the INAP, as **provisional** guarantee, to meet the obligations, penalties and other expenses that may arise under the administrative rules and other conditions mentioned above against the insured.

The insured declares under its responsibility that meets the requirements of Article 57.1 of the General Rules of the Law on Public Sector Contracts.

Non-payment of premium, unique, first or subsequent, shall not entitle the insurer to terminate the contract, nor it shall cease, nor insurance coverage suspended or discharged it, if the insurer must do the guarantee.

The insurer may not raise any exceptions to the insured may have against the policyholder.

The insurer undertakes to indemnify the insured upon the first application of the **el Instituto Nacional de la Administración Pública** or equivalent body of the remaining Public Administrations, in the terms established in the Law on Public Sector Contracts and its development rules.

This bond insurance remains in force until the Instituto Nacional de la Administración Pública, or who in the name is legally authorized to do so, authorizes its cancellation or return, in accordance with the provisions of the Contract Law and Legislation Public Sector complementary.

Place and date: Madrid, December 14, 2009

Signed: Pedro Muñoz Muñoz

Insurer: Seguros de Caución, S.A.

Evaluation of power done by the Asesoría Jurídica de la C.G.D. o Abogacía del Estado		
Province	Fecha	Número o código
Caja Gral. de Depósitos	12/09/2006	220/04

```xml
<?xml version="1.0" encoding="UTF-8"?>
<gc:Guarantee
 xmlns:ext="urn:oasis:names:specification:ubl:schema:xsd:CommonExtensionComponents-2"
 xmlns:cbc="urn:dgpe:names:draft:codice:schema:xsd:CommonBasicComponents-2"
xmlns:udt="urn:un:unece:uncefact:data:specification:UnqualifiedDataTypesSchemaModule:2"
 xmlns:cac="urn:dgpe:names:draft:codice:schema:xsd:CommonAggregateComponents-2"
 xmlns:gc="urn:dgpe:names:draft:codice:schema:xsd:Guarantee-2"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
   <cbc:UBLVersionID>2.1</cbc:UBLVersionID>
   <cbc:CustomizationID>CiP 2.0</cbc:CustomizationID>
   <cbc:ID>000000001</cbc:ID>
   <cbc:ContractFolderID>INAP/Abierto/14-12-2009</cbc:ContractFolderID>
   <cbc:IssueDate>2009-12-14</cbc:IssueDate>
   <cbc:GuaranteeTypeCode
listURI="http://contrataciondelestado.es/codice/cl/1.04/GuaranteeTypeCode-1.04.gc"
listVersionID="2006">1</cbc:GuaranteeTypeCode>
   <cbc:Purpose>Servicios de carácter informático para el soporte de la infraestructura de
sistemas y servicios del INAP</cbc:Purpose>
   <cbc:LiabilityAmount currencyID="EUR">5000</cbc:LiabilityAmount>
   <cbc:ConstitutionCode
listURI="http://contrataciondelestado.es/codice/cl/1.04/GuaranteeConstitutionTypeCode-1.04.gc"
listVersionID="2006">4</cbc:ConstitutionCode>
   <cbc:Note>
     El asegurado declara, bajo su responsabilidad, que cumple los requisitos exigidos en el artículo
57.1 del Reglamento General de la Ley de Contratos de las Administraciones Públicas.

     La falta de pago de la prima, sea única, primera o siguientes, no dará derecho al asegurador a
resolver el contrato, ni éste quedará extinguido, ni la cobertura del asegurador suspendida ni éste
liberado de su obligación, caso de que el asegurador deba hacer efectiva la garantía.

     El asegurador no podrá oponer al asegurado las excepciones que puedan corresponderle contra
el tomador del seguro.
   </cbc:Note>
   <cac:ApplicablePeriod>
     <cbc:Description>
       El presente seguro de caución estará en vigor hasta que el Instituto Nacional de la
Administración Pública, o quien en su nombre sea habilitado legalmente para ello, autorice su
cancelación o devolución, de acuerdo con lo establecido en la Ley de Contratos del Sector Público y
legislación complementaria.
     </cbc:Description>
   </cac:ApplicablePeriod>
   <cac:ApplicableRegulation>
     <cbc:Name>Ley 30/2007, del 30 de octubre, de Contratos del Sector Público, normativa de
desarrollo y pliego de cláusulas administrativas particulares</cbc:Name>
   </cac:ApplicableRegulation>
   <cac:GuarantorParty>
     <cac:PartyIdentification>
       <cbc:ID schemeID="CIF">A6280005F</cbc:ID>
     </cac:PartyIdentification>
     <cac:PartyName>
       <cbc:Name>Seguros de Caución, S.A</cbc:Name>
     </cac:PartyName>
     <cac:PostalAddress>
       <cbc:CityName>Madrid</cbc:CityName>
       <cbc:PostalZone>28001</cbc:PostalZone>
       <cac:AddressLine>
         <cbc:Line>C/ Atocha 2</cbc:Line>
       </cac:AddressLine>
       <cac:Country>
         <cbc:IdentificationCode                    listURI="http://docs.oasis-open.org/ubl/os-ubl-
2.0/cl/gc/default/CountryIdentificationCode-2.0.gc" listVersionID="0.3">ES</cbc:IdentificationCode>
       </cac:Country>
     </cac:PostalAddress>
     <cac:PowerOfAttorney>
       <cbc:ID>220/04</cbc:ID>
       <cbc:IssueDate>2006-09-12</cbc:IssueDate>
       <cbc:Description>Caja Gral. de Depósitos</cbc:Description>
```

```
        <cac:NotaryParty>
          <cac:PartyName>
            <cbc:Name> Asesoría Jurídica de la C.G.D o Abogacía del Estado </cbc:Name>
          </cac:PartyName>
        </cac:NotaryParty>
        <cac:AgentParty>
          <cac:PartyIdentification>
            <cbc:ID schemeID="NIF">01361366F</cbc:ID>
          </cac:PartyIdentification>
          <cac:PartyName>
            <cbc:Name>Pedro Muñoz Muñoz</cbc:Name>
          </cac:PartyName>
        </cac:AgentParty>
      </cac:PowerOfAttorney>
    </cac:GuarantorParty>
    <cac:InterestedParty>
      <cac:PartyIdentification>
<cbc:ID schemeID="CIF">A79178653</cbc:ID>
      </cac:PartyIdentification>
      <cac:PartyName>
        <cbc:Name>ATOCHA COMPUTERS, S.A.</cbc:Name>
      </cac:PartyName>
    </cac:InterestedParty>
    <cac:BeneficiaryParty>
      <cac:PartyIdentification>
        <cbc:ID schemeID="CIF">Q2811002A</cbc:ID>
      </cac:PartyIdentification>
      <cac:PartyName>
        <cbc:Name>Instituto Nacional de la Administración Pública </cbc:Name>
      </cac:PartyName>
    </cac:BeneficiaryParty>
</gc:Guarantee>
```

3.9.2 Application for a certificate of constitution

Contracting authority may request a certificate to a financial institution systemically.

Guarantee Certificate Request document contains information necessary for a financial institution to identify and meet the guarantee lodged and be able to issue a certificate.

Guarantee application certificate document has:

- **InterestedParty.** Information about an interested party

- **BeneficiaryParty.** Information about a contracting authority as beneficiary

- **ContractFolderID.** Contract file number for which guarantee is requested.

- **GuaranteeTypeCode.** Type of guarantee (provisional or final)

- **Purpose.** Information about the contract and its purpose

With this information financial institution should find the deposited guarantee and answer issuing the proper certificate.

3.9.3 Issuance of guarantee certificate

Guarantee Certificate is a document very similar to a Guarantee. It contains the same components, but it is not needed to convey information about the Guarantor's power of attorneys .

Besides components of a Guarantee, Guarantee Certificate provides an additional component, a reference to the original guarantee document. Thus, a financial institution can refer to the original guarantee document or embed it on the certificate itself.

Guarantee certificate must be signed by its issuer to give it integrity and authenticity of origin as explained in the CODICE Electronic Signature Guideline document.

3.9.3.1 Example of Guarantee Certificate

Below there is an example of guarantee certificate issued by a cash deposit in Spain, having been constituted in the form of endorsement.

CODICE2

GUARANTEE CERTIFICATE

PROVISIONAL/FINAL: PROVISIONAL

GUARANTOR

NIF/CIF: 000701048	**SURNAME AND NAME OR COMPANY NAME:** Caja de Ahorros de Madrid
	ADDRESS: C/ Atocha 1
	TOWN: Madrid **PZ:** 28001

GUARANTEED

NIF/CIF: B82387770	**SURNAME AND NAME OR COMPANY NAME:** INFORMÁTICA ACME, S.A,
	ADDRESS: Pº de la Castellana, 116
	TOWN: Madrid **PZ:** 28004

RULES IMPOSING THE CONSTITUTION OF THIS DEPOSIT OR GUARANTEE

| **CODE:** | **DENOMINATION:** |
| 0160 | Art. 83 de la Ley 30/2007 de Contratos del Sector Público |

IMMOBILIZATION CERTIFICATE	**IMMOBILIZATION DATE**	**EFFECTIVE TERM**	**MANAGING ENTITY**

ISIN CODE	**NOMINAL VALUE**	**SHARES NUMBER**	**REALIZATION VALUE**

| **PURPOSE:** Servicios de carácter informático para el soporte de la infraestructura de sistemas y servicios del INAP | **FILE NUMBER:** INAP_14-12-2009 |

BENEFICIARY

| **NIF:** Q2811002A | **ENTITY:** Instituto Nacional de la Administración Pública |

| **AMOUNT:** FIVE THOUSAND EUROS | **AMOUNT:** 5.000 € |

CODICE2

ISSUE DATE: Madrid, May 11, 2010

```xml
<?xml version="1.0" encoding="UTF-8"?>
<gc:GuaranteeCertificate
 xmlns:cbc="urn:dgpe:names:draft:codice:schema:xsd:CommonBasicComponents-2"
xmlns:cac="urn:dgpe:names:draft:codice:schema:xsd:CommonAggregateComponents-2"
xmlns:gc="urn:dgpe:names:draft:codice:schema:xsd:GuaranteeCertificate-2"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
   <cbc:UBLVersionID>2.1</cbc:UBLVersionID>
   <cbc:CustomizationID>CiP 2.0</cbc:CustomizationID>
   <cbc:ID>092032001</cbc:ID>
   <cbc:ContractFolderID>INAP_14-12-2009</cbc:ContractFolderID>
   <cbc:IssueDate>2010-05-11</cbc:IssueDate>
   <cbc:GuaranteeTypeCode
listURI="http://contrataciondelestado.es/codice/cl/1.04/GuaranteeTypeCode-1.04.gc"
listVersionID="2006">1</cbc:GuaranteeTypeCode>
   <cbc:Purpose>Servicios de carácter informático para el soporte de la infraestructura de
sistemas y servicios del INAP</cbc:Purpose>
   <cbc:LiabilityAmount currencyID="EUR">5000</cbc:LiabilityAmount>
   <cbc:ConstitutionCode
listURI="http://contrataciondelestado.es/codice/cl/1.04/GuaranteeConstitutionTypeCode-1.04.gc"
listVersionID="2006">2</cbc:ConstitutionCode>
   <cac:ApplicableRegulation>
      <cbc:Name>Art. 83 de la Ley 30/2007 de Contratos del Sector Público</cbc:Name>
      <cbc:LegalReference>0160</cbc:LegalReference>
   </cac:ApplicableRegulation>
   <cac:GuarantorParty>
      <cac:PartyIdentification>
         <cbc:ID>000701048</cbc:ID>
      </cac:PartyIdentification>
      <cac:PartyName>
         <cbc:Name>Caja de Ahorros de Madrid</cbc:Name>
      </cac:PartyName>
      <cac:PostalAddress>
         <cbc:CityName>Madrid</cbc:CityName>
         <cbc:PostalZone>28001</cbc:PostalZone>
         <cac:AddressLine>
            <cbc:Line>C/ Atocha 1</cbc:Line>
         </cac:AddressLine>
         <cac:Country>
            <cbc:IdentificationCode                listURI="http://docs.oasis-open.org/ubl/os-ubl-
2.0/cl/gc/default/CountryIdentificationCode-2.0.gc" listVersionID="0.3">ES</cbc:IdentificationCode>
         </cac:Country>
      </cac:PostalAddress>
   </cac:GuarantorParty>
   <cac:InterestedParty>
      <cac:PartyIdentification>
         <cbc:ID schemeID="CIF">B82387770</cbc:ID>
      </cac:PartyIdentification>
      <cac:PartyName>
         <cbc:Name>INFORMÁTICA ACME, S.A</cbc:Name>
      </cac:PartyName>
      <cac:PostalAddress>
         <cbc:CityName>Madrid</cbc:CityName>
         <cbc:PostalZone>28004</cbc:PostalZone>
         <cac:AddressLine>
            <cbc:Line>Pº de la Castellana, 116</cbc:Line>
         </cac:AddressLine>
         <cac:Country>
            <cbc:           IdentificationCode           listURI="http://docs.oasis-open.org/ubl/os-ubl-
2.0/cl/gc/default/CountryIdentificationCode-2.0.gc"                       listVersionID="0.3">ES
</cbc:IdentificationCode>
         </cac:Country>
      </cac:PostalAddress>
   </cac:InterestedParty>
   <cac:BeneficiaryParty>
      <cac:PartyIdentification>
         <cbc:ID schemeID="CIF">Q2811002A</cbc:ID>
```

```
        </cac:PartyIdentification>
      <cac:PartyName>
        <cbc:Name>Instituto Nacional de la Administración Pública </cbc:Name>
      </cac:PartyName>
    </cac:BeneficiaryParty>
</gc:GuaranteeCertificate>
```

3.10 Using identifiers

CODICE re-uses basic UBL "Identifier" components. These CCTS components let identify which scheme identifiers have been used. Depending on the context in which they are used, different identifier schemes may be used.

In some cases, CODICE identifiers must report an attribute "schemeName".

- **schemeName:** value that may have semantic meaning for applications using CODICE. Sometimes, closed lists of values are used depending on the context in which the identifier is used.

Example of the identifiers' use for item cac: PartyIdentification / cbc: ID

```
<cac:PartyIdentification>
        <cbc:ID schemeName="ID_PLATAFORMA">10000150000369</cbc:ID>
</cac:PartyIdentification>

<cac:PartyIdentification>
        <cbc:ID schemeName="CIF">B00949513</cbc:ID>
</cac:PartyIdentification>
```

In the Spanish eTendering Platform, "schemeName" can take the values defined in a customization table.

3.11 Using code lists

Code lists used in CODICE are defined using genericode format files. Genericode is an standard for codelists defined by OASIS (http://docs.oasis-open.org/codelist/genericode/doc/oasis-code-list-representation- genericode.html)

These code lists are published in http://contrataciondelestado.es/codice/cl/ .

UBL components of type Code can carry information about the used code as attributes, where you can find the definition of the code used.

These attributes are used according to the methodology established by UBL, which establishes the following correspondence:

```
UBL @listID  ==  genericode LongName[@Identifier='listID']  or
LongName[1]
• UBL @listName == genericode LongName[1]
• UBL @listVersionID == genericode Version
• UBL @listSchemeURI == genericode CanonicalVersionUri
• UBL @listURI == genericode LocationUri
• UBL @listAgencyID == genericode Agency/Identifier
```

- UBL @`listAgencyName` == genericode Agency/LongName

There are also other attributes that allow a user to include additional information on the code used:

- **language:** (options) language used in the attributes "xml: lang" of GC corresponding to values of the list so that you can extract the corresponding value definition. This value can be set as optional, but it is highly recommended for a correct representation of the description of codes.

- **name:** (optional) In CODICE this attribute corresponds to the description of the corresponding value in a GC. It is an optional value that only adds information to the reader and may prevent access to a GC for a value description , although this practice is not recommended.

Usage of code lists in CODICE is documented in a spreadsheet published on http://contrataciondelestado.es . Its use is described in section 3.5.

Example using Code Lists in CODICE

```
<cbc:ContractingPartyTypeCode                                    languageID="es"
listURI="http://contrataciondelestado.es/codice/cl/1.04/ContractingAuthorityCode-1.04.gc"
listVersionID="2006" name="Administración General del Estado">1</cbc:ContractingPartyTypeCode>
```

3.12 Using classification schemes

A classification scheme is used to categorize or divide objects into groups according to some features that these objects have in common. UBL provides a specific component called Classification Scheme for defining classification schemes.

For use of classification schemes within CODICE you need to report a series of elements and attributes, so that it is possible to determine the structure and how values are treated in response to an scheme. A classification scheme consists mainly of two elements: a ClassificationScheme class with meta information needed to identify which list of values or classification is done, and a ClassificationCategory element, which reports the values selected from a list or outline. The elements or attributes used to report these two components are:

- **ClassificationScheme**

  o **URI:** URI where the scheme or list of codes (GC) that contains the values and structure on which to select items is located.

  o **VersionID:** version used. In case of a GC it must be the value of the "Version" element for the GC.

  o **LanguageID:** (options) this value can be set as optional, but it is highly recommended for a correct representation of the description of the codes.

  o **Name:** (optional) this attribute is used to inform about the name of the list or scheme used. It is an optional value that only adds information to the reader.

  o **ID:** (optional) this attribute is optional, but corresponds to an identifier that could come to have semantic meaning, if specified. It could be used as a key to identify the structure of the scheme. Being schemes or lists that have a URL that information is implicit in the URL and ID is not used.

- **ClassificationCategory**

  - o **CodeValue:** where you set the value of selected classification scheme

  - o **Description:** (optional) this UBL element corresponds to the description of the value in the classification scheme. It is an optional value that only adds information to a reader and may prevent access to the schema definition or GC, for a description of value, although this practice is not recommended.

  - o **Name:** (optional). This value can be set as optional, and it is used to describe the type of item being treated.

3.13 Documents attached to CODICE documents

CODICE documents are XML documents with structured information. However, in many cases, it is necessary to attach other documents containing additional unustructured information.

This is the case for the call for tenders document, where you may include other unstructured documents such as PDF, MS Word, Open Document, etc.

To add attachments to CODICE documents a component cac: DocumentReference from UBL may be used.

Among items contained in the Document Reference component type, we emphasize the following ones:

- **ID:** Identifier for a document. It may be its filename. It is required.

- **IssueDate:** Date of issue of a document.

- **DocumentTypeCode:** Code that identifies a document type.

- **Attachment:** Complex class that contains or makes reference to a document

  - o **EmbeddedDocumentBinaryObject:** Binary Object type element where you can embed a document encoded in Base64. Binary Object type attributes are defined in CCTS. It is to be highlighted the need for use of a mimeCode attribute where a code can be specified that respects the CodeList_MIMEMediaTypeCode_IANA_7_04.xsd schema fragment defined by UN / CEFACT.

  - o **ExternalReference:** Complex class referring to an external reference. It consists of:
    - ▪ **URI:** Uniform Resource Identifier File.

    - ▪ **DocumentHash:** Calculated hash for a document to allow detection of changes in documents published externally.

    - ▪ **HashAlgorithmMethod:** Text describing the algorithm used to calculate the previous hash.

- **MimeCode:** MIME Code for the file

- **FormatCode:** File Format

- **EncodingCode:** Encoding of the file

- **CharacterSetCode:** Code character set.

- **Filename:** Filename.

At the user level you can embed a document or create an external reference, but in order to avoid problems of inconsistency it is not recommended to use both methods. There are therefore two mechanisms to attach a document: to embed it in the XML once converted to Base64 or creating a link.

3.13.1.1   Example of an embedded document

Here is an example of tender documents in PDF format embedded in Base64. PCAP code is defined in the list of document type codes within CODICE.

```
<cac:LegalDocumentReference>
<cbc:ID> bii2businessplanv0p91.pdf </cbc:ID>
<cbc: DocumentTypeCode
listURI = " http://contrataciondelestado.es/codice/cl/2.0/TenderingDocumentTypeCode-2.0.gc "
listVersionURI=" 2.0 "> DOC_PCAP </cbc:DocumentTypeCode>
 <cac:Attachment>
  <cbc:EmbeddedDocumentBinaryObject      mimeCode="      application/pdf      "      filename="
bii2businessplanv0p91.pdf                                        "                              >
JVBERi0xLjUNCiW1tbW1DQoxIDAgb2JqDQo8PC9UeXBlL0NhdGFsb2cvUGFnZXMgMiAwIFIvTGFu
JVBERi0xLjUNCiW1tbW1DQoxIDAgb2JqDQo8PC9UeXBlL0NhdGFsb2cvUGFnZXMgMiAwIFIvTGFu
Zyhlbi1HQikgL1N0cnVjdFRyZWVSb290IDEwNyAwIFIvTWFya0luZm88PC9NYXJrZWQgdHJ1ZT4+
Zyhlbi1HQikgL1N0cnVjdFRyZWVSb290IDEwNyAwIFIvTWFya0luZm88PC9NYXJrZWQgdHJ1ZT4          +
Pj4NCmVuZG9iag0KMiAwIG9iag0KPDwvVHlwZS9QYWdlcy9Db3VudCAxMS9LaWRzWyAzIDAgUiAx
Pj4NCmVuZG9iag0KMiAwIG9iag0KPDwvVHlwZS9QYWdlcy9Db3VudCAxMS9LaWRzWyAzIDAgUiAx
NiAwIFIgMTggMCBSIDM1IDAgUiAzOCAwIFIgNDAgMCBSIDU3IDAgUiA2OSAwIFIgNzEgMCBSIDcz
NiAwIFIgMTggMCBSIDM1IDAgUiAzOCAwIFIgNDAgMCBSIDU3IDAgUiA2OSAwIFIgNzEgMCBSIDcz
IDAgUiA3NSAwIFIgNzcgMCBSIDc5IDAgUiA4MSAwIFIgODUgMCBSIDg3IDAgUiA4OSAwIFIgOTcg
IDAgUiA3NSAwIFIgNzcgMCBSIDc5IDAgUiA4MSAwIFIgODUgMCBSIDg3IDAgUiA4OSAwIFIgOTcg
MCBSIDk5IDAgUiAxMDIgMCBSIDEwNCAwIFJdID4+DQplbmRvYmoNCjMgMCBvYmoNCjw8L1R5cGUv
MCBSIDk5IDAgUiAxMDIgMCBSIDEwNCAwIFJdID4          +          DQplbmRvYmoNCjMgMCBvYmoNCjw8L1R5cGUv
UGFnZS9QYXJlbnQgMiAwIFIvUmVzb3VyY2VzPDwvRm9udDw8L0YxIDUgMCBSL0YyIDcgMCBSL0Yz
UGFnZS9QYXJlbnQgMiAwIFIvUmVzb3VyY2VzPDwvRm9udDw8L0YxIDUgMCBSL0YyIDcgMCBSL0Yz
IDkgMCBSL0Y0IDExIDAgUj IDkgMCBSL0Y0IDExIDAgUj
… …

NjAgMDAwMDAgbbg0KMDAwMDAzMjg2OSAwMDAwMCBu
NjAgMDAwMDAgbbg0KMDAwMDAzMjg2OSAwMDAwMCBu
DQowMDAwMDMzMDc2IDAwMDAwIG4NCjAwMDAwMzMzMDQgMDAwMDAgbbg0KMDAwMDAzMzYwNCAwMD
Aw                                                                                               Aw
DQowMDAwMDMzMDc2IDAwMDAwIG4NCjAwMDAwMzMzMDQgMDAwMDAgbbg0KMDAwMDAzMzYwNCAwMD
MCBuDQowMDAwMDQ5MjA3IDAwMDAwIG4NCjAwMDAwNDkyNTEgMDAwMDAgbbg0KdHJhaWxlcg0KPDwv
MCBuDQowMDAwMDQ5MjA3IDAwMDAwIG4NCjAwMDAwNDkyNTEgMDAwMDAgbbg0KdHJhaWxlcg0KPDwv
U2l6ZSAxNDEvUm9vdCAxIDAgUi9JbmZvIDIxIDAgUi9JRFs8NThTFQkZCOTBCQ0JJCM0E0OEFBQTM1
U2l6ZSAxNDEvUm9vdCAxIDAgUi9JbmZvIDIxIDAgUi9JRFs8NThTFQkZCOTBCQ0JJCM0E0OEFBQTM1
OEY2OTlFMUU4RDc+PDU4RUJGQjkwQkNCNCNjNBNDhBQUEzNThGNjk5RTFFOEQ3Pl0gPj4NCnN0YXJ0
OEY2OTlFMUU4RDc          +          PDU4RUJGQjkwQkNCNCNjNBNDhBQUEzNThGNjk5RTFFOEQ3Pl0gPj4NCnN0YXJ0
eHJlZg0KNDk3NjYNCiUlRU9GDQp4cmVmDQowIDANCnRyYWlsZXINCjw8L1NpemUgMTQxL1Jvb3Qg
eHJlZg0KNDk3NjYNCiUlRU9GDQp4cmVmDQowIDANCnRyYWlsZXINCjw8L1NpemUgMTQxL1Jvb3Qg
MSAwIFIvSW5mbyAyMSAwIFIvSURbPDU4RUJGQjkwQkNCNCNjNBNDhBQUEzNThGNjk5RTFFOEQ3Pjw1
MSAwIFIvSW5mbyAyMSAwIFIvSURbPDU4RUJGQjkwQkNCNCNjNBNDhBQUEzNThGNjk5RTFFOEQ3Pjw1
OEVCRkI5MEJDQkIzQTQ4QUFBMzU4RjY5OUUxRThENz5dIC9QcmV2IDQ5NzY2Y1hSWWTdG0gNDky
OEVCRkI5MEJDQkIzQTQ4QUFBMzU4RjY5OUUxRThENz5dIC9QcmV2IDQ5NzY2Y1hSWWTdG0gNDky
NTE+Pg0Kc3RhcnR4cmVmDQo1Mjc0NQ0KJSVFT0Y=</      cbc:      EmbeddedDocumentBinaryObject>
</cac:                                                                                    Attachment>
</cac: LegalDocumentReference>
```

3.13.1.2   Example of a referenced document

The same example can be described by using an external reference to a resource on the Internet. In this case, the document metadata must be incorporated as a property of the External Reference class and also a Hash is reported. It is then recommended to allow detection of changes in the published document.

```
<cac:LegalDocumentReference>
 <cbc:ID> bii2businessplanv0p91.pdf </cbc:ID>
 <cbc:DocumentTypeCode
listURI = " http://contrataciondelestado.es/codice/cl/2.0/TenderingDocumentTypeCode-2.0.gc "
listVersionURI="          2.0          ">          DOC_PCAP          </          cbc:          DocumentTypeCode>
 <cac:Attachment>
  <cac:ExternalReference>
   <cbc:URI>
http://contrataciondelestado.es/wps/wcm/connect/PLACE_es/Site/area/docAccCmpnt?srv=cmpnt&amp;cmpntna
me=GetDocumentsById&amp;source=library&amp;DocumentIdParam=6493b7004f6b57899a74bf04e45c51db
   </cbc:URI>
   <cbc:DocumentHash> CcHHOOVEy111yS6DHco7WExx4dU= </cbc:DocumentHash>
   <cbc:HashAlgorithmMethod> http://www.w3.org/2000/09/xmldsig#sha1
   </cbc: HashAlgorithmMethod>
   <cbc:MimeCode> application/pdf </cbc:MimeCode>
   <cbc:FileName> bii2businessplanv0p91.pdf </cbc:FileName>
rence>
  </cac:Attachment>
</cac:LegalDocumentReference>
```

3.14 Electronic signatures in CODICE documents

Some CODICE documents, tender documents or responsible declarations included in the administrative documentation, should incorporate electronic signatures for legal validity.

Use of electronic signatures on CODICE documents is detailed in the document CODICE_Guia_Implementacion_Firma_Electrónica.

4 CODICE 2.0 Artifacts

This section lists and describes various artifacts developed during the CODICE 2.0 project. These artifacts are the basis of CODICE 2.0.

4.1 List of artifacts

List of artifacts supplied with CODICE 2.0.

Type	Description	Artifacts
CODICE 2.0 Model	Spreadsheet model CODICE 2.0	CODICE_v20.ods
	An XSD schema for each document.	CODICE-AwardedNotification-2.0.xsd CODICE-CallforTenders-2.0.xsd CODICE-ContractAwardNotice-2.0.xsd CODICE-ContractNotice-2.0.xsd CODICE Guarantee-2.0.xsd CODICE-GuaranteeCertificate-2.0.xsd CODICE-GuaranteeCertificateRequest-2.0.xsd CODICE-PriorInformationNotice-2.0.xsd CODICE-RegistrationCertificate-2.0.xsd CODICE-Tender-2.0.xsd CODICE-TenderEnvelope-2.0.xsd CODICE-TendererQualification-2.0.xsd CODICE-TendererQualificationResponse-2.0.xsd CODICE-TenderReceipt-2.0.xsd CODICE-UnawardedNotification-2.0.xsd
	XSD schemas for common elements	CCTS_CCT_SchemaModule-2.0.xsd CodeList_CurrencyCode_ISO_7_04.xsd CodeList_LanguageCode_ISO_7_04.xsd CodeList_MIMEMediaTypeCode_IANA_7_04.xsd CodeList_UnitCode_UNECE_7_04.xsd CODICE-CommonAggregateComponents-2.0.xsd CODICE-CommonBasicComponents-2.0.xsd UBL-CommonExtensionComponents-2.0.xsd UBL-CoreComponentParameters-2.0.xsd UBL-ExtensionContentDatatype-2.0.xsd UBL-QualifiedDatatypes-2.0.xsd UnqualifiedDataTypeSchemaModule-2.0.xsd
Code lists	Spreadsheet with all code lists developed for CODICE 2.0	DGPE_CODICE2.0_CodeList_01032010_v4.13.ods
	Genericode files with lists of codes.	
Transformations	Transformation CODICE 1.06 to CODICE 2.0	codice-1.6-to-2.0-conversion.xsl
	Transformation CODICE 2.0 to CODICE 1.06	codice-2.0-to-1.6-conversion.xsl
	Transforming CODICE 2.0 to the format defined by the OJEU 2.0.7	codice-2.0-to-OJEU_2.0.7-conversion.xsl MapeoCodes.xml
	Transforming a Call For Tenders to a Tender CODICE 2.0	build-from-call-for-tenders.xsl
	Transforming a Call For Tenders to a Tenderer Qualification CODICE 2.0	tender qualification -from-call-for-tenders.xsl
Display Templates	PDF Conversion of all documents CODICE 2.0	odice2.0_to_xhtml.xsl generic2.0-template.xsl diccionarioCODICE_2.0.xml anuncio.css dgpe-xslt-print.css dgpe-xslt-screen.css
	XHTML Conversion to a summary table for editing from MS Word	DiccionarioCODICE_2.0.xml CuadroResumenPliego.V.1.0.xls fulla-estils.css
Tools	Generation tool of Call For Tenders	Adobe Flex callfortenders.html
	Generation tool electronic tenders	Adobe Flex tender.html
	Generation Tool On Administrative	Adobe Flex tendererqualification.html

Documentation (Tenders Qualification)	

4.2 CODICE 2.0 Spreadsheets

CODICE 2.0 models have been created with the same system used by UBL TC for the creation of UBL document models. UBL Technical Committee uses a spreadsheet to capture the knowledge of data models. From these spreadsheets schemes can be generated directly using a tool. This automatic generation of schemes avoids errors and dramatically reduces the time of creation and test of results.

CODICE 2.0 has used UBLer to generate XSD schemas from a single Open Office file.

4.2.1 Spreadsheet Structure

CODICE_v2.0.ods has the following sheets:

- UBL 2.1
- Additions to library UBL 21
- Contract Notice
- Call for Tenders
- Prior Information Notice
- Contract Award Notice
- Tenderer Qualification Response
- Guarantee
- Guarantee Certificate Request
- Guarantee Certificate
- Tenderer Qualification
- Tender
- Tender Receipt
- Unawarded Notification
- Awarded Notification
- Tender Envelope
- Registration Certificate

The first two sheets refer to classes or components shared and reused in all CODICE documents. From third sheet to the end, each one refers to a single standard document.
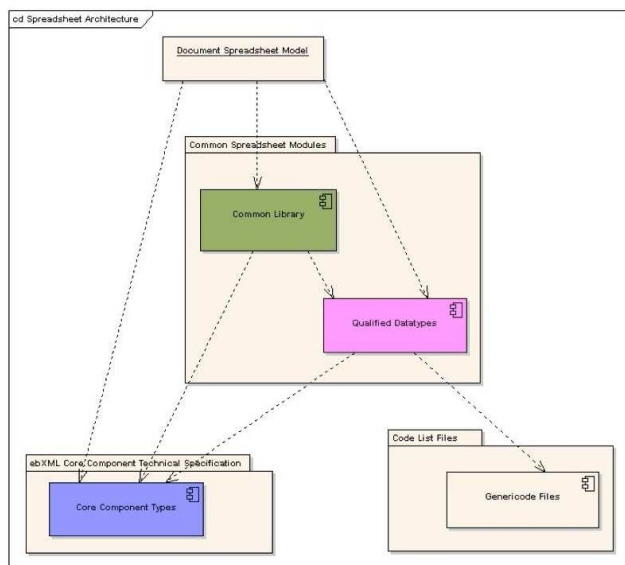
Figure 1 Spreadsheet relationship

Common component library is divided into two sheets, "UBL21" and "Additions to UBL library 21." "UBL21" defines all standard library components from UBL reused in CODICE 2.0. The second sheet has new components specific for eTendering and defined in CODICE 2.0, which will become part of the new library UBL 2.1.

Generation system combines components of both sheets to create the XSD module aggregates components.

4.2.2 Description of columns

Both components and document sheets have the following columns:

- **UBL Name:** UBL Name is the name that will take the XML tag . It is a field derived from rules defined in UBL Naming and Design Rules issued by UBL Technical Committee.

- **Dictionary Entry Name:** Dictionary name of an entry. It is built following rules of the ebXML Core Component Technical Specification.

- **Object Class Qualifier:** A word or words that help define and differentiate one BIE from another, for example when used in different contexts. It is not often used in UBL.

- **Object Class:** It follows ebXML CCTS naming rules that extend those defined by ISO 11 179. An Object Class represents a logical grouping or aggregation of properties. Object Classes have explicit boundaries and meaning and their properties and behavior follow the same rules. Each Object Class is an ABIE. Also known as Reusable Types, Classes (UML) and Entity / Tables (for database designers).

- **Property Term Qualifier:** It follows the ebXML CCTS naming rules that extend those defined by ISO 11 179. They are a word or words that help define and differentiate one BIE from another. Qualifiers specialize or modify a Property Term, ie when a BIE is used in another context. A guide of use could be an expression of a relationship of "a kind of". This means that adjectives are good candidates for Qualifiers.

- **Property Term Possessive Noun:** It consists of an extension of ebXML CCTS defined by UBL TC to improve consistency of the denomination of properties (Property Term). Sometimes a property has one or more possessives preceding a given name. i.e. "Name Of The Street" or "Street's Name" is the Possesive Street Name; the Primary Noun and Noun. In this case defines the possessive terms qualifying the principal name of the property.

- **Property Term Primary Noun:** As in the previous case, it is an extension of ebXML CCTS defined by UBL TC. A property name consisting of multiple words can be described as a leading name and a possessive noun. Otherwise, it will be a Qualifier (Property Term Qualifier)

- **Property Term:** It follows rules that extend ebXML CCTS naming rules defined by ISO 11 179. It represents a feature or property of an Object Class. The combination of Object Class and Property Term should give the basic semantic meaning of an item. In UBL a Property Term is built with the Primary Noun preceded by Possessive Nouns or Qualifiers.

- **Representation Term:** It follows ebXML CCTS naming rules that extend rules defined by ISO 11 179. A Representation Term is an element that describes the way in which the Property Term is represented.

- **Data Type Qualifier:** It qualifies a type of data.

- **Data Type:** Name of a data type of a Property Term. It is based on Core Component Types as described in ebXML CCTS.

- **Associated Object Class Qualifier:** It describes the context of a relationship between an ABIE with another ABIE. It is a role played by an Object Class in association with another Object Class.

- **Associated Object Class:** Object Class at the other end of the association. It refers to another ABIE in this model.

- **Alternative Business Term:** Synonyms of the BIE known and used in a given context. It may be used to map a BIE to a controlled vocabulary, to other vocabularies or to labels for creating forms.

- **Cardinality:** The occurrences of the BIE are the following:

  o 0 .. 1 - optional and only one

  o 1 .. 1 - compulsory and only one

  o 0 .. n - optional and maximum n

  o 1 .. n - mandatory and maximum n.

      where n can be a specific number or undefined.

- **Component Type:** There are three possible types:

  o Basic (BBIE- white rows)

  o Associate (ASBIE - green rows) or

- o   Aggregate (ABIE - pink rows).

- **English Definition:** Semantic meaning of the business concept of this BIE in English.

- **Examples:** Examples of a BIE.

- **UN / TDED Code:** A Trade Data Element Dictionary code (ISO 7372) for this BIE.

- **Current Version:** Version number of this BIE. It can be used to generate change logs.

- **Analyst Notes:** Comments, questions and notes made by analysts. Not part of the normative schemes

- **Candidate CC ID:** UUID to referred core component, whenever there is a direct relationship.

- **Context:** Business Process

- **Context:** Region (Geopolitical)

- **Context:** Official Constraints

- **Context:** Product

- **Context:** Industry

- **Context:** Role

- **Context:** Supporting Role

- **Context:** System Constraint

- **Editor's Notes**

- **Alternative Business Terms:** Business Terms in Spanish.

- **Definition:** Definition in Spanish.

4.2.3 Schema generation from spreadsheets

XSD schemas can automatically be generated from spreadsheets. There are different tools on the market that can be used to generate XSD schemas from spreadsheets.

Rules defined in UBL Naming and Design (NDR) establish a relationship between spreadsheets and schemas and allow their generation.
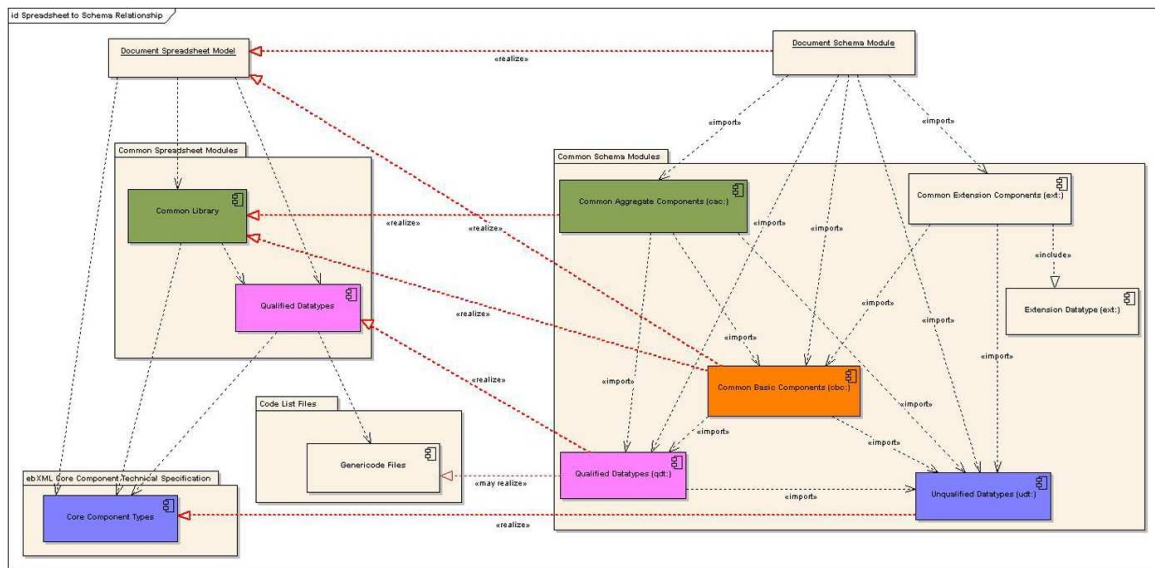
Figure 2 Relationship between spreadsheets and schemes

Each document model generates a schema document root.

Each schema document imports reusable classes described in the common aggregates module, and basic properties module.

4.3 XML Schemas in CODICE 2.0

4.3.1 XSD Architecture in CODICE 2.0

CODICE schemas will be integrated in the new version of UBL 2.1 and follow the same guidelines as schemas of the OASIS UBL TC.

Graphically, the architecture of the CODICE 2.0 schemas can be seen in the illustration below.

According to UBL, CODICE uses the CCT (Core Component Types) defined by ebXML for the creation of their BBIE or properties.
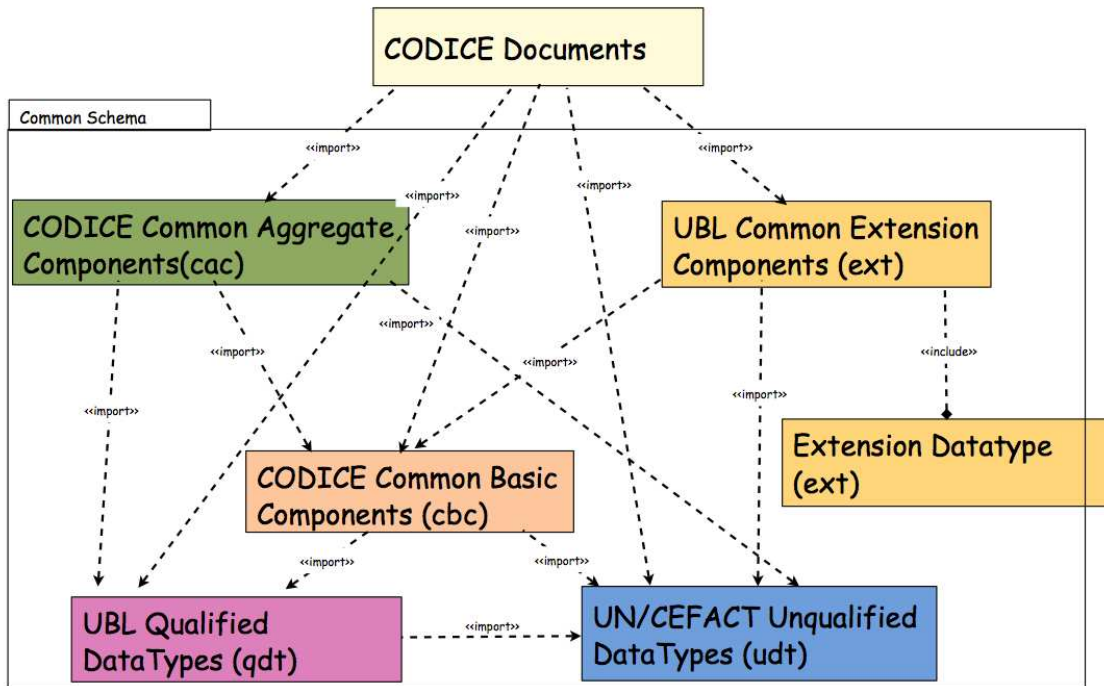
Figure 3 XSD structrure for CODICE documents

4.3.2 CODICE 2.0 vs UBL 2.1

These new eTendering documents have been delivered to UBL TC for inclusion in a new version of the standard (UBL 2.1) scheduled for summer 2010. This new release of UBL is present in a number of documents, incorporating, among others, all documents related to electronic procurement identified within the CODICE project.

Not all documents defined in CODICE 2.0 have been integrated in UBL 2.1. The following documents have been finally dropped out from UBL 2.1:

- CODICE -Guarantee-2.0.xsd
- CODICE-GuaranteeCertificate-2.0.xsd
- CODICE-RegistrationCertificate-2.0.xsd
- CODICE-TenderEnvelope-2.0.xsd

4.3.3 Namespaces

UBL version 2.1 will include tendering documents. Until the release of UBL 2.1, CODICE 2.0 namespaces have to be used.

Migration of namespace CODICE 2.0 to UBL 2.1 will be possible until new schemas of UBL 2.1 become available.

Meanwhile, namespaces used in CODICE 2.0 are the following:

CODICE-AwardedNotification-2.0.xsd	urn: dgpe: names: draft: codice: schema: xsd: AwardedNotification-2
CODICE-CallforTenders-2.0.xsd	urn: dgpe: names: draft: codice: schema: xsd: CallforTenders-2
CODICE-ContractAwardNotice-2.0.xsd	urn: dgpe: names: draft: codice: schema: xsd: ContractAwardNotice-2

CODICE-ContractNotice-2.0.xsd	urn: dgpe: names: draft: codice: schema: xsd: ContractNotice-2
CODICE -Guarantee-2.0.xsd	urn: dgpe: names: draft: codice: schema: xsd: Guarantee-2
CODICE-GuaranteeCertificate-2.0.xsd	urn: dgpe: names: draft: codice: schema: xsd: GuaranteeCertificate-2
CODICE-GuaranteeCertificateRequest-2.0.xsd	urn: dgpe: names: draft: codice: schema: xsd: GuaranteeCertificateRequest-2
CODICE-PriorInformationNotice-2.0.xsd	urn: dgpe: names: draft: codice: schema: xsd: PriorInformationNotice-2
CODICE-RegistrationCertificate-2.0.xsd	urn: dgpe: names: draft: codice: schema: xsd: RegistrationCertificate-2
CODICE-Tender-2.0.xsd	urn: dgpe: names: draft: codice: schema: xsd: Tender-two
CODICE-TenderEnvelope-2.0.xsd	urn: dgpe: names: draft: codice: schema: xsd: TenderEnvelope-2
CODICE-TendererQualification-2.0.xsd	urn: dgpe: names: draft: codice: schema: xsd: TendererQualification-2
CODICE-TendererQualificationResponse-2.0.xsd	urn: dgpe: names: draft: codice: schema: xsd: TendererQualificationResponse-2
CODICE-TenderReceipt-2.0.xsd	urn: dgpe: names: draft: codice: schema: xsd: TenderReceipt-2
CODICE-UnawardedNotification-2.0.xsd	urn: dgpe: names: draft: codice: schema: xsd: UnawardedNotification-2
CODICE-CommonAggregateComponents-2.0.xsd	urn: dgpe: names: draft: codice: schema: xsd: CommonAggregateComponents-2
CODICE-CommonBasicComponents-2.0.xsd	urn: dgpe: names: draft: codice: schema: xsd: CommonBasicComponents-2

5 References

5.1 CODICE

CODICE documentation can be found in http://contrataciondelestado.es/wps/portal/codice

5.2 UBL 2.0

UBL 2.0 documentation can be found in
http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=ubl

- http://docs.oasis-open.org/ubl/idd/cs-UBL-2.0-idd01/cs-UBL-2.0-idd01.zip UBL 2.0 IDD Vol. 1 approved as OASIS Committee Specification. It contains translations to Japanese, Italian and Spanish.

- http://docs.oasis-open.org/ubl/os-UBL-2.0-update-delta.zip UBL 2.0 Update Package released on December 2006.

- http://docs.oasis-open.org/ubl/os-UBL-2.0.zip [Diciembre 2006] New installation UBL 2.0

5.3 CEN BII

CEN BII documentation can be found in http://spec.cenbii.eu/

5.4 UN/CEFACT/TBG6

Documentation about TBG6 is available in
http://www1.unece.org/cefact/platform/display/TBG/TBG6

6 Glossary

UBL: Universal Business Language; vocabulary of components and commercial documents based in the CCTS (ISO 15000) defined by the international organization OASIS. You can find information on this standard in http://www.oasis-open.org/

CCTS : Core Components Technical Specification.

CODICE : Componentes y Documentos Interoperables para la Contratación Electrónica. [Interoperable Components and Documents for e-Procurement Processes; Spanish Project]

TSA : Time-Stamping Authority.

CA : Certificate Autority. Entity responsible for issuing and revoking digital certificates used in electronic signatures.