OPENTED

The following table (Table 1) presents how the main entities are modeled by using the appropriate classes. As can be seen, each distinct concept and entity is modeled using a different class. The business information is modeled using classes from well-known ontologies. The namespaces are presented in Table 6.

**Classes**

Table : The core classes of the proposed general model

|  |  |
| --- | --- |
| Concept / Entity | Class |
| Operator, Contraction Authority | gr:BusinessEntity |
| Operator, Contraction Authority | foaf:Organization |
| Unit Price Specification | gr:UnitPriceSpecification |
| Award Criteria Combination | pc:AwardCriteriaCombination |
| Operator, Contraction Authority | regorg:RegisteredOrganization |
| Signer | foaf:Agent |
| Tender | pc:Tender |
| VAT | elod:VAT |
| Contract | pc:Contract |
| Authority kind, Procedure type, Contract kind | skos:ConceptScheme |
| CPV | elod:CPV |
| Criterion Weighting | pc:CriterionWeighting |
| Operator, Contraction Authority | org:Organization |

**Properties**

Table 2 The Objects Properties

|  |  |  |
| --- | --- | --- |
| Domain | Property | Range |
| gr:BusinessEntity | pc:authorityKind | skos:Concept |
| pc:Contract | pc:contractingAuthority | gr:BusinessEntity |
| pc:Tender | pc:bidder | gr:BusinessEntity |
| foaf:Agent | vcard:hasAddress | vcard:Address |
| skos:Concept | skos:inScheme | skos:ConceptScheme |
| pc:Contract | elod:buyer | foaf:Agent |
| gr:UnitPriceSpecification | elod:hasCurrency | elod:Currency |
| elod:Amount | elod:hasCurrency | elod:Currency |
| gr:UnitPriceSpecification | elod:hasCurrency | skos:Concept |
| elod:Amount | elod:hasCurrency | skos:Concept |
| foaf:Agent | elod:isRegisteredAt | vcard:Address |
| nodeID://b10036 | elod:signer | foaf:Person |
| pc:Contract | pc:agreedPrice | gr:UnitPriceSpecification |
| pc:Contract | pc:kind | skos:Concept |
| pc:Contract | pc:mainObject | skos:Concept |
| pc:Contract | pc:awardCriteriaCombination | pc:AwardCriteriaCombination |
| pc:AwardCriteriaCombination | pc:awardCriterion | pc:CriterionWeighting |
| pc:Contract | pc:additionalObject | skos:Concept |
| pc:Contract | pc:procedureType | skos:Concept |
| pc:CriterionWeighting | pc:weightedCriterion | skos:Concept |
| gr:UnitPriceSpecification | elod:hasVat | elod:VAT |
| foaf:Agent | elod:countryIsoCode | skos:Concept |
| elod:AidActivity | elod:countryIsoCode | skos:Concept |

Table 3 The Functional Properties

|  |  |  |
| --- | --- | --- |
| Domain | Property | Range |
| gr:BusinessEntity | pc:authorityKind | skos:Concept |
| pc:Contract | pc:awardDate | xsd:date |
| pc:Contract | pc:contractingAuthority | gr:BusinessEntity |
| pc:Contract | pc:kind | skos:Concept |
| pc:Contract | pc:mainObject | skos:Concept |
| pc:Contract | pc:awardCriteriaCombination | pc:AwardCriteriaCombination |
| pc:CriterionWeighting | pc:criterionWeight | pcdatatypes:percentage |
| pc:Contract | pc:procedureType | skos:Concept |
| pc:CriterionWeighting | pc:weightedCriterion | skos:Concept |
| pc:Contract | pc:numberOfTenders | xsd:nonNegativeInteger |

Table 4 The Datatype properties

|  |  |  |
| --- | --- | --- |
| gr:UnitPriceSpecification | gr:hasCurrencyValue | xsd:float |
| elod:Amount | gr:hasCurrencyValue | xsd:float |
| elod:Subproject | dcterms:title | xsd:string |
| foaf:Agent | gr:name | xsd:string |
| elod:Subsidy | dcterms:description | xsd:string |
| vcard:Address | vcard:locality | xsd:string |
| pc:Contract | elod:contractId | xsd:string |
| elod:CPV | elod:cpvCode | xsd:string |
| pc:Contract | pc:awardDate | xsd:date |
| elod:CommittedItem | elod:financialYear | xsd:gYear |
| pc:CriterionWeighting | pc:criterionWeight | pcdatatypes:percentage |
| vcard:Address | vcard:street-address | xsd:string |
| gr:UnitPriceSpecification | gr:valueAddedTaxIncluded | xsd:boolean |
| pc:Contract | pc:numberOfTenders | xsd:nonNegativeInteger |
| elod:VAT | elod:vatPercentage | xsd:float |

Table 5 The Coded Properties

|  |  |  |
| --- | --- | --- |
| gr:BusinessEntity | pc:authorityKind | skos:Concept |
| pc:Contract | pc:kind | skos:Concept |
| pc:Contract | pc:procedureType | skos:Concept |

**Prefixes**

Table Prefixes

|  |  |  |
| --- | --- | --- |
| Prefix | Ontology Name | Namespace |
| gr | Good Relations | http://purl.org/goodrelations/v1# |
| sc | Schema | http://schema.org/ |
| dcterms | Dublin Core Terms | http://purl.org/dc/terms/ |
| dc | Dublin Core Entities | http://purl.org/dc/elements/1.1/ |
| rev | REV | http://purl.org/stuff/rev# |
| cpsv | CPSV | http://purl.org/vocab/cpsv# |
| skos | SKOS | http://www.w3.org/2004/02/skos/core# |
| dbpedia | dbpedia | http://dbpedia.org/ontology/ |
| pc | Public Contract | http://purl.org/procurement/public-contracts# |
| vcard | VCARD | http://www.w3.org/2006/vcard/ns# |
| elod | ELOD | http://linkedeconomy.org/ontology# |
| foaf | FOAF | http://xmlns.com/foaf/0.1/ |
| rov | ROV | http://www.w3.org/ns/regorg# |
| org | ORG | http://www.w3.org/ns/org# |