**Public Project**

**Entities**

* Public Project
* Subsidy
* Procurement
* Subproject
* Administrative Decision
* Financial Decision
* Non Financial Decision
* Budget Item
* Contract
* Spending Item
* Beneficiary
* Seller
* Address

**Connections**

* Subsidy/Procurement – Subproject
* Subsidy/Procurement – Financial Decision/Non Financial Decision
* Subsidy/Procurement/Subproject - Budget Item
* Subsidy/Procurement – Contract
* Subsidy/Procurement - Spending Item
* Subsidy/Procurement – Beneficiary
* Subproject - Seller
* Subproject - Budget Item
* Beneficiary - Address
* Seller - Address

**Main Classes**

* elod:AdministrativeDecision [elod:FinancialDecision[elod:CommittedItem, elod:ExpenseApprovalItem, elod:SpendingItem, pc:Contract], elod:NonFinancialDecision[elod:Decision]]
* elod:PublicProject [elod:Subsidy, elod:Procurement]
* elod:SubProject
* elod:BudgetItem
* elod:SpendingItem
* elod:ExpenditureLine
* pc:Contract
* foaf:Organization, gr:BusinessEntity, org:Organization, rov:RegisteredOrganization

**Main Object Properties**

**elod:hasRelatedAdministrativeDecision**

Domain - Range: elod:PublicProject [elod:Subsidy, elod:Procurement] - elod:AdministrativeDecision

**elod:beneficiary**

Domain - Range: elod:PublicProject [elod:Subsidy, elod:Procurement] - foaf:Organization, gr:BusinessEntity, org:Organization, rov:RegisteredOrganization

**elod:seller**

Domain - Range: elod:SubProject - foaf:Organization, gr:BusinessEntity, org:Organization, rov:RegisteredOrganization

**elod:hasRelatedProject**

Domain - Range: elod:PublicProject[elod:Subsidy, elod:Procurement] - elod:SubProject

**elod:hasRelatedBudgetItem**

Domain - Range: elod:PublicProject[elod:Subsidy, elod:Procurement], elod:SubProject - elod:BudgetItem

**elod:hasRelatedSpendingItem**

Domain - Range: elod:PublicProject[elod:Subsidy, elod:Procurement]- elod:SpendingItem

**elod:hasRelatedContract**

Domain - Range: elod:PublicProject[elod:Subsidy, elod:Procurement]- pc:Contract

**elod:hasExpenditureLine**

Domain - Range: elod:SpendingItem - elod:ExpenditureLine

**vcard:hasAddress**

Domain - Range: foaf:Organization, gr:BusinessEntity, org:Organization, rov:RegisteredOrganization - vcard:hasAddress

**elod:amount**

Domain - Range: elod:ExpenditureLine - gr:UnitPriceSpecification

**elod:price**

Domain - Range: elod:BudgetItem - gr:UnitPriceSpecification

**pc:agreedPrice**

Domain - Range: pc:Contract - gr:UnitPriceSpecification

**elod:projectStatus**

Domain - Range: elod:PublicProject[elod:Subsidy, elod:Procurement]- elod:ProjectStatus

**elod:hasCurrency**

Domain - Range: elod:UnitPriceSpecification - elod:Currency

**Datatype Properties**

* gr:hasCurrencyValue
* gr:validFrom
* gr:validThrough
* gr:valueAddedTaxIncluded
* gr:name
* vcard:street-address
* dc:subject
* dc:title
* rdfs:label
* elod:countOfRelatedProjects
* elod:completion
* elod:startDate
* elod:endDate

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 3.

|  |  |
| --- | --- |
| **Concept/Entity** | **Class** |
| Public Project | elod:PublicProject |
| Administrative Decision | elod:AdministrativeDecision |
| Financial Decision | elod:FinancialDecision |
| non Financial Decision | elod:NonFinancialDecision |
| Subsidy | elod:Subsidy |
| Procurement | elod:Procurement |
| SubProject | elod:SubProject |
| Budget Item | elod:BudgetItem |
| Contract | pc:Contract |
| Spending Item | elod:SpendingItem |
| Address | vcard:Address |
| Beneficiary/Seller | foaf:Organization  org:Organization  gr:BusinessEntity  rov:RegisteredOrganization |

Table 1: The core classes of the proposed general model

The following table (Table 2) presents how the core classes are related with the appropriate properties.

|  |  |  |
| --- | --- | --- |
| **Domain** | **Property** | **Range** |
| elod:PublicProject [elod:Subsidy, elod:Procurement] | elod:hasRelatedAdministrativeDecision | elod:AdministrativeDecision[elod:Financial, elod:NonFinancial] |
| elod: PublicProject | elod:hasRelatedProject | elod:SubProject |
| elod: PublicProject, [elod:Subsidy, elod:Procurement] | elod:beneficiary | Organization classes |
| elod:PrublicWork[elod:Subsidy, elod:Procurement],  elod:SubProject | elod:hasRelatedBudgetItem | elod:BudgetItem |
| elod: PublicProject, [elod:Subsidy, elod:Procurement] | elod:hasRelatedContract | pc:Contract |
| elod: PublicProject, [elod:Subsidy, elod:Procurement] | elod:hasRelatedSpendingItem | elod:SpendingItem |
| elod: PublicProject, [elod:Subsidy, elod:Procurement],  elod:SubProject | elod:hasRelatedBudgetItem | elod:BudgetItem |
| Organization classes | vcard:hasAddress | vcard:Address |

Table 2: The interconnections among the classes using the appropriate properties

|  |  |  |
| --- | --- | --- |
| **Prefix** | **Namespace** | **Ontology name** |
| foaf | http://xmlns.com/foaf/0.1/ | FOAF |
| dc | http://purl.org/dc/elements/1.1/ | Dublic Core |
| gr | http://purl.org/goodrelations/v1# | Good Relations |
| org | http://www.w3.org/ns/org# | Organizations |
| rov | http://www.w3.org/ns/regorg# | Registered Organization |
| elod | http://linkedeconomy.org/ontology# | Linked Economy |
| vcard | http://www.w3.org/2006/vcard/ns# | vCard Ontology |

Table 3: The namespaces