



Registered Organization Vocabulary

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The vocabulary defined in this document is also available in these non-normative formats: [RDF/XML](#) and [Turtle](#).

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Abstract

The Registered Organization Vocabulary is a profile of the Organization Ontology for describing organizations that have gained legal entity status through a formal registration process, typically in a national or regional register.

Status of This Document

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This document was published by the [Government Linked Data Working Group](#) as a Note. If you wish to make comments regarding this document, please send them to public-gld-comments@w3.org ([subscribe](#) , [archives](#)). All feedback is welcome.

The only changes made since the [previous version](#) of this document concern the [acknowledgements](#) section and a trivial change to the [example](#) to correct a URI. No substantive changes have been made.

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1. Introduction

This section is non-normative.

This is a vocabulary for describing organizations that have gained legal entity status through a formal registration process, typically in a national or regional register. It focuses solely on such organizations and excludes natural persons, virtual organizations and other types of legal entity or 'agent' that are able to act. It is a profile of the more flexible and comprehensive Organization Ontology [[ORG](#)]. The relationship between the Registered Organization Vocabulary (RegOrg) and the Organization Ontology is described [below](#) .

The Registered Organization Vocabulary includes a minimal number of classes and properties that are designed to capture the typical details recorded by business registers and thereby facilitate information exchange between them, although there is significant variation between business registers in what they record and publish.

2. Namespaces

This section is non-normative.

The namespace for the Registered Organization vocabulary is <http://www.w3.org/ns/regorg#> and the preferred prefix is `rov` . A full set of namespaces and prefixes used in this document is shown in the table below.

Prefix	Namespace
adms	http://www.w3.org/ns/adms#

dcterms	http://purl.org/dc/terms/
org	http://www.w3.org/ns/org#
skos	http://www.w3.org/2004/02/skos/core#
xsd	http://www.w3.org/2001/XMLSchema#

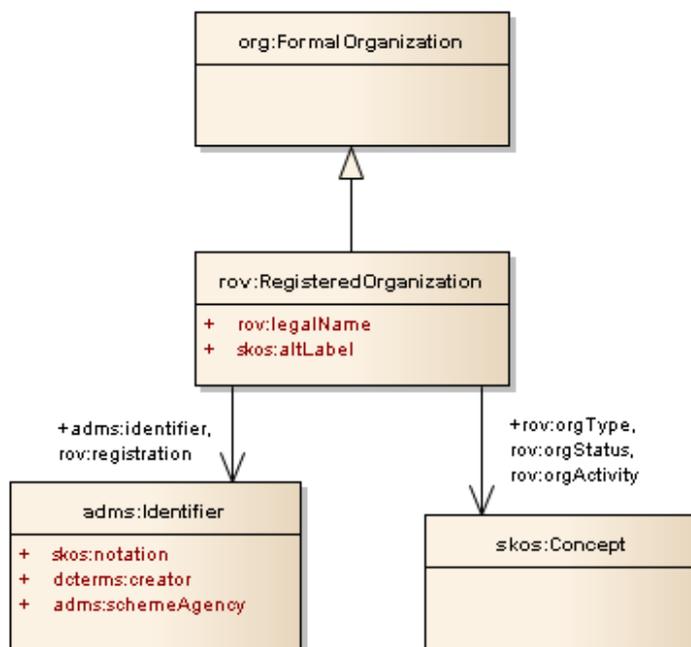
3. Overview of the vocabulary

This section is non-normative.

The key class is `rov:RegisteredOrganization` and it is this class that represents a single business that became a legal entity through a formal registration process. It is a sub class of `org:FormalOrganization` that covers any legal entity, however created. The sub class relationship allows us to use all aspects of ORG such as the `org:hasRegisteredSite` property to link a registered organization with the site of its registered address. The registration process varies between different jurisdictions; in some cases it's the tax authority that registers a business, in others a separate register exists and so on.

As well as defining the `rov:RegisteredOrganization` class, this vocabulary also makes use of classes defined elsewhere: the `adms:Identifier` class and the familiar `skos:Concept`. The Identifier class captures the legal and other identifiers, while the Concept class can be used to describe properties like the organization type, status and activity, that might be recognized across national borders.

The Registered Organization class is associated with the Identifier and Concept classes through 2 properties, `adms:identifier` and `org:classification` respectively. These have sub-properties with more specific semantics as depicted in the diagram and the following sections.



The Registered Organization Vocabulary

3.1 Vocabulary index

Normative definitions of each term in the vocabulary are provided in the [Vocabulary Definitions](#) section but for quick reference they are listed below.

Classes:

[rov:RegisteredOrganization](#)

Properties:

[rov:legalName](#) [skos:altLabel](#) [rov:orgType](#) [rov:orgStatus](#) [rov:orgActivity](#)
[rov:registration](#) [rov:hasRegisteredOrganization](#)

4. RegOrg Usage

This section is non-normative.

The following is an example of a (real) company described using the Registered Organization vocabulary (in RDF/Turtle, which is also available as a [separate file](#) . This includes:

- a description of the organization;
- a legal identifier (i.e. details of the registration with the authority that conferred legal status);
- a further identifier (Open Corporates).

We assume here that example.com is publishing information about registered organizations. This might be the company register itself or another organization.

```

1 <http://business.data.gov.uk/id/company/04285910>
2   a rov:RegisteredOrganization ;
3   rov:legalName "Apple Binding Ltd" ;
4   rov:orgStatus <http://example.com/ref/status/NormalActivity> ;
5   rov:orgType <http://example.com/ref/type/Plc> ;
6   rov:orgActivity <http://example.com/ref/NACE/2/C/18/01/02> ;
7   rov:orgActivity <http://example.com/ref/NACE/2/C/18/01/04> ;
8   rov:registration <http://example.com/id/li04285910> ;
9   adms:identifier <http://example.com/id/oc04285910> ;
10  org:registeredSite <http://example.com/id/rs04285910> .

# The actual registration
11 <http://example.com/id/li04285910> a adms:Identifier ;
12   skos:notation "04285910"^^ex:idType ;
13   adms:schemaAgency "UK Companies House" ;
14   dcterms:issued "2001-09-12"^^xsd:date .

# A supplementary identifier (Open Corporates)
15 <http://example.com/id/oc04285910> a adms:Identifier ;
16   skos:notation "http://opencorporates.com/companies/gb/04285910"^^ex:OCid ;
17   dcterms:issued "2010-10-21T15:09:59Z"^^xsd:dateTime ;
18   dcterms:modified "2012-04-26T15:16:44Z"^^xsd:dateTime ;
19   dcterms:creator <http://opencorporates.com/companies/gb/07444723> .

```

Line 3 gives the legally registered name of the company. In some jurisdictions, especially those where there are multiple official languages, a single company may have several legal names and therefore it can be appropriate to use multiple instances of the [legalName](#) property (language tags may, of course, be added). It is noteworthy that ORG assumes that an organization can only have a single legally recognized name (which is the common case) and therefore uses [skos:prefLabel](#) for this. It is the possibility of having more than one such name in a limited number of jurisdictions, that justifies the creation of [rov:legalName](#) .

Where a company is known informally by an alternative name of some sort, or a trading name, in addition to its legal name, then [skos:altLabel](#) should be used to provide those alternatives as is done in ORG.

In lines 4 and 5, URIs identify the [organization status](#) and [organization type](#). Different jurisdictions will typically define different values for organization status such as trading, insolvent and ceased trading. Similarly there is a wide variety of organization types such as Plc, SA and GmbH although within a given jurisdiction there will be a limited number of defined terms. Even where the terms used in different jurisdictions are lexically identical, they may have slightly different legal meanings. The controlled list of values for organization type and organization status should be encoded as a SKOS Concept Scheme so that each one has a URI.

Registers typically record the type of activity (or multiple activities) carried out. These are normally set out in a controlled vocabulary and again, these can vary from one jurisdiction to another. The UN's ISIC Codes [[ISIC4](#)] form a common starting point for several such vocabularies including the European Union's NACE [[NACE](#)] Codes and UK's SIC codes [[SIC07](#)]. The URIs shown as the values of `rov:orgActivity` in lines 6 and 7 assume that NACE codes are encoded as SKOS concepts.

Line 8 carries the crucial [registration](#) property that points to an Identifier class (defined in ADMS [[ADMS](#)]). Although formally the Registered Organization vocabulary has no mandatory classes or properties, the defining characteristic of a registered organization is that it is formally registered. This is the property that captures that information and links to the formal registration which is described in lines 15 - 18. In this case, Apple Binding became a registered company on 12 September 2001 when UK Companies House issued it with the identifier 04285910. The identifier is typed in line with expected practice for `skos:notation` and the ORG ontology. Incidentally, UK Companies House publishes its information about registered companies as linked data and the example uses that URI as the subject of the description.

Line 10 shows the `org:registeredSite` used to point to a description of the registered address of the organization (the address information itself is not shown).

In addition to their company registration identifier, legal entities are very likely to have other identifiers associated with them, such as tax numbers, VAT numbers etc. Line 9 points to an example of an additional identifier, one that does not confer legal status (or any other status) on the company but that is potentially useful as an identifier.

5. Relationship with the Organization Ontology

This section is non-normative.

A Registered Organization (`rov:RegisteredOrganization`) is a sub class of the Organization Ontology's Formal Organization (`org:FormalOrganization`). Furthermore, RegORG includes three sub properties of ORG's classification property covering status, activity and type.

The key difference is the way in which identifiers are handled. In the ORG ontology, an organization may have an identifier expressed as a datatyped string (it uses a sub property of `skos:notation`). For Registered Organizations, it is the identifier issued by the relevant registration authority that confers legal status and therefore always has particular significance. RegORG uses the ADMS class of Identifier (based on the UN/CEFACT class of the same name) to allow statements to be made *about* the identifier in a way not possible in ORG. Given data about a Registered Organization, it is possible to derive an `org:identifier` but the inverse is not true.

In summary:

`rov:RegisteredOrganization` is a sub class of `org:FormalOrganization`

`rov:orgType` , `rov:orgStatus` and `rov:orgActivity` are all sub properties of `org:classification` .

Given data such as:

```
<http://example.com/id/123456>
  rov:registration <http://example.com/id/li123456> .

<http://example.com/id/li123456> a adms:Identifier ;
  skos:notation "123456"^^ex:idType .
```

This SPARQL query

```
CONSTRUCT {
  ?org org:identifier ?id .
} WHERE {
  ?org rov:registration [skos:notation ?id] .
}
```

yields the `org:identifier` property and value, i.e.

```
<http://example.com/id/123456>
  org:identifier "123456"^^ex:idType .
```

6. Vocabulary Definitions

The classes and properties are described in the following sub-sections.

6.1 The Registered Organization Class

Class	Notes
<code>rov:RegisteredOrganization</code>	Sub class of <code>org:FormalOrganization</code>

The Registered Organization class is central to the vocabulary. It represents an organization that gains legal entity status by the act of registration cf. `org:FormalOrganization` that applies to any legal entity, including those created by other legal means. In many countries there is a single registry although in others, such as Spain and Germany, multiple registries exist.

Registered organizations are distinct from the broader concept of organizations, groups or, in some jurisdictions, sole traders. Many organizations exist that are not legal entities yet to the outside world they have staff, hierarchies, locations etc. Other organizations exist that are an umbrella for several legal entities (universities are often good examples of this).

`rov:RegisteredOrganization` is a sub class of the Organization Ontology's `org:FormalOrganization` which is itself a sub class of the more general 'Agent' class found in FOAF [[FOAF](#)] and Dublin Core [[DC11](#)] that does encompass organizations, natural persons, groups etc. — i.e. an Agent is any entity that is able to carry out actions.

6.2 Properties

Legal Name

Property	Domain	Range
----------	--------	-------

<code>rov:legalName</code>	<code>org:FormalOrganization</code>	<code>rdfs:Literal</code>
----------------------------	-------------------------------------	---------------------------

The legal name of the business. A business might have more than one legal name, particularly in countries with more than one official language. In such cases the language of the string should be identified.

skos:altLabel

Property	Domain	Range
<code>skos:altLabel</code>	<code>rdfs:Resource</code>	<code>rdfs:Literal</code>

Some jurisdictions recognize concepts such as a trading name or alternative forms of a legal entity's name. Alternative names can be recorded using the `skos:altLabel` but should not be used to record translations of the primary legal name. Where more than one legal name exists and where they have equal standing but are expressed in different languages, identify the language used in each of the multiple legal names (see previous section).

It is notable that some jurisdictions regard the use of any name other than the primary Legal Name as suspicious.

Organization Type

Property	Domain	Range
<code>rov:orgType</code> <code>rdfs:subPropertyOf org:classification</code>	<code>org:Organization</code>	<code>skos:Concept</code>

This property records the type of company. Familiar types are SA, PLC, LLC, GmbH etc. At the time of publication, there is no agreed set of company types that crosses borders. The term 'SA' is used in Poland and France for example although they mean slightly different things. The UK's LLP and Greece's EPE provide further example of close, but not exact, matches.

That said, each jurisdiction will have a limited set of recognized company types and these should be expressed in a consistent manner in a SKOS Concept Scheme.

Organization Status

Property	Domain	Range
<code>rov:orgStatus</code> <code>rdfs:subPropertyOf org:classification</code>	<code>org:Organization</code>	<code>skos:Concept</code>

Recording the status of an organization presents the same issues as its type. The terms 'insolvent', 'bankrupt' and 'in receivership,' for example, are likely to mean slightly different things with different legal implications in different jurisdictions.

Taking advice from [XBRL Europe](#) as a starting point, however, the term 'Normal Activity' does

appear to have cross-border usefulness and this should be used in preference to terms like 'trading' or 'operating.'

Best Practice for recording various other status levels is to use the relevant jurisdiction's terms and to encode these in a SKOS Concept Scheme.

Organization Activity

Property	Domain	Range
<code>rov:orgActivity</code> <code>rdfs:subPropertyOf org:classification</code>	<code>org:Organization</code>	<code>skos:Concept</code>

The activity of an organization should be recorded using a controlled vocabulary. Several such vocabularies exist, many of which map to the UN's ISIC codes [[ISIC4](#)]. Where a particular controlled vocabulary is in use within a given context, such as SIC codes in the UK, it is acceptable to use these, however, the preferred choice for European interoperability is NACE [[NACE](#)]. As with company type and status, activity codes should be expressed as SKOS Concept Schemes.

Registration

Property	Domain	Range
<code>rov:registration</code> <code>rdfs:subPropertyOf adms:identifier</code>	<code>rov:RegisteredOrganization</code>	<code>adms:Identifier</code>

The legal status of a registered organization is conferred on it by an authority within a given jurisdiction. The registration is therefore a fundamental relationship between a the organization and the authority with which it is registered. The details of the registration are provided as properties of the Identifier class which is defined by ADMS [[ADMS](#)]. The vocabulary sets no restriction on the type of legal identifier. In many countries, the business register's identifier is the relevant data point. The tax number often fulfils this function in Spain and elsewhere.

Although there is no formal cardinality constraint on any property in the Registered Organization Vocabulary, it is questionable whether a description of a registered organization without this property and an associated Identifier class will be of any value.

Has Registered Organization

Property	Domain	Range
<code>rov:hasRegisteredOrganization</code>	<code>dcterms:Agent</code>	<code>rov:RegisteredOrganization</code>

The has registered organization relationship can be used to link any `dcterms:Agent` (equivalent class `foaf:Agent`) to a Registered Organization that in some way acts as a registered legal entity for it. This is useful, for example, where an organization includes one or more legal entities, or where a natural person is also registered as a legal entity.

7. Conformance

As well as sections marked as non-normative, all authoring guidelines, diagrams, examples, and notes in this specification are non-normative. Everything else in this specification is normative.

The key words **MUST** , **MUST NOT** , **REQUIRED** , **SHOULD** , **SHOULD NOT** , **RECOMMENDED** , **MAY** , and **OPTIONAL** in this specification are to be interpreted as described in [[RFC2119](#)].

A data interchange, however that interchange occurs, is conformant with the Registered Organization vocabulary if:

- it uses the terms (classes and properties) in a way consistent with their semantics as declared in this specification;
- it does not use terms from other vocabularies instead of ones defined in this vocabulary that could reasonably be used.

A conforming data interchange:

- may include terms from other vocabularies;
- may use only a subset of Registered Organization vocabulary terms.

A Registered Organization application profile is a specification for data interchange that adds additional constraints. Such additional constraints in a profile may include:

- a minimum set of required terms;
- classes and properties for additional terms not covered in the Registered Organization vocabulary;
- controlled vocabularies or URI sets as acceptable values for properties;

The Registered Organization Vocabulary is technology-neutral and a publisher may use any of the terms defined in this document encoded in any technology although RDF and XML are preferred.

A. Change Log

Multiple changes have been made since the [previous version](#) of RegOrg. These have been made to align the vocabulary more closely with other GLD WG outputs, notably DCAT and ORG. In particular `dcterms:created` has been replaced with `dcterms:issued` , and `dcterms:alternative` has been replaced with `skos:altLabel` . The UML diagram is aligned with that used for ADMS and, in the same way that ADMS is defined as a profile of DCAT, RegOrg is now defined as a profile of ORG.

The use of the term 'company type' was seen as being too restrictive for other types of registered organizations such as charities so that `rov:companyType` , `rov:companyActivity` and `rov:companyStatus` have been replaced with `rov:orgType` , `rov:orgActivity` and `rov:orgStatus` respectively.

B. Note on identifier and classification properties

There are several vocabularies in use with a property of 'identifier' and this vocabulary creates a sub property of one of them. The following table provides a summary of these related but semantically different properties in terms of their domains and ranges

property	domain	range

<code>adms:identifier</code>	<code>rdfs:Resource</code>	<code>adms:Identifier</code>
<code>rov:registration</code>	<code>rov:RegisteredOrganization</code>	<code>adms:Identifier</code> (<code>rov:registration</code> is a sub property of <code>adms:identifier</code>)
<code>org:identifier</code>	<code>org:Organization</code>	<code>rdfs:Literal</code> (<code>org:identifier</code> is a sub property of <code>skos:notation</code>)
<code>dcterms:identifier</code>	<code>rdfs:Resource</code>	<code>rdfs:Literal</code>

C. Acknowledgements

RegOrg was first developed by and published by the European Commission [ISA Programme](#) with support from the Directorate General Internal Market and Services (DG MARKT) as the [Core Business Vocabulary](#). Contributors included representatives of Member States of the European Union, operators of national repositories, standardization bodies and independent experts whose work was published in May 2012. That document includes the history and motivation behind the development of RegOrg, as well as the business need and usage scenario for it.

Further development and review has been undertaken by the [Government Linked Data Working Group](#) (GLD WG). This version of the vocabulary builds on the original work in a broader, global context.

The working group would also like to thank the directors of [Apple Binding](#) for permission to describe their company in the example.

D. References

D.1 Normative references

[ADMS]

[Asset Description Metadata Schema \(ADMS\)](#) P. Archer, G. Shukair, W3C Working Group Note. URL: <http://www.w3.org/TR/vocab-adms/>

[DC11]

Dublin Core metadata initiative. [Dublin Core metadata element set, version 1.1](#). July 1999. Dublin Core recommendation. URL: <http://dublincore.org/documents/dcmi-terms/>

[FOAF]

Dan Brickley, Libby Miller. [FOAF Vocabulary Specification 0.98](#). 9 August 2010. URL: <http://xmlns.com/foaf/spec/>

[ORG]

[An organization ontology](#), D. Reynolds, W3C Recommendations Track URL: <http://www.w3.org/TR/vocab-org/>

[RFC2119]

S. Bradner. [Key words for use in RFCs to Indicate Requirement Levels](#). March 1997.

Internet RFC 2119. URL: <http://www.ietf.org/rfc/rfc2119.txt>

D.2 Informative references

[ISIC4]

[*International Standard Industrial Classification of All Economic Activities, Rev.4*](#) , United Nations Statistics Division. URL: <http://unstats.un.org/unsd/cr/registry/regcst.asp?CI=27>

[NACE]

[*Statistical Classification of Economic Activities in the European Community*](#) , Eurostat
URL: http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_NOM_DTL&StrNom=NACE_REV2&StrLanguageCode=EN

[SIC07]

[*Standard Industrial Classification of Economic Activities 2007*](#) , UK Companies House
URL: <http://www.companieshouse.gov.uk/infoAndGuide/sic/sic2007.shtml>