ROH Ontology Classes, Object Properties and DataType Properties

1. Ontologies used

Prefix	Ontology name	Ontology namespace	Ontology website
bibo	Bibliographic Ontology	http://purl.org/roh/mirror/bibo#	http://bibliontology.com/
cito	CiTO, the Citation Typing Ontology	http://purl.org/spar/cito#	https://sparontologies.github.io/cito/current/cito.html
foaf	FOAF: Friend of a Friend Ontology	http://purl.org/roh/mirror/foaf#	http://xmlns.com/foaf/spec/
gn	GeoNames Ontology	http://purl.org/roh/mirror/geonames#	http://www.geonames.org/ontology/documentation.html
obo-bfo	OBO Foundry, Basic Formal Ontology	http://purl.org/roh/mirror/obo/bfo#	http://www.obofoundry.org/ontology/bfo.html
obo-ero	OBO Foundry, eagle-i Research Resource Ontology (ERO)	http://purl.org/roh/mirror/obo/ero#	https://open.catalyst.harvard.edu/wiki/display/eaglei/Ontology
obo-iao	OBO Foundry, Information Artifact Ontology	http://purl.org/roh/mirror/obo/iao#	https://github.com/information-artifact-ontology/IAO/
obo-ro	OBO Foundry, Relations Ontology	http://purl.org/roh/mirror/obo/ro#	http://www.obofoundry.org/ontology/ro.html
owl	OWL Web Ontology Language	http://www.w3.org/2002/07/owl#	https://www.w3.org/TR/owl-features/

Prefix	Description	Namespace URI	Documentation
rdf	The RDF Concepts Vocabulary (RDF)	http://www.w3.org/1999/02/22-rdf-syntax-ns#	https://www.w3.org/TR/rdf-concepts/
rdfs	RDF Schema 1.1	http://www.w3.org/2000/01/rdf-schema#	https://www.w3.org/TR/rdf-schema/
roh	Red de Ontologías Hércules / Hercules Network of Ontologies	http://purl.org/roh#	https://github.com/HerculesCRUE/GnossDeustoOnto/tree/master/Documentation
rohes	Red de Ontologías Hércules / Hercules Network of Ontologies, Spanish specialization	http://purl.org/rohes#	https://github.com/HerculesCRUE/GnossDeustoOnto/tree/master/Documentation
rohum	Red de Ontologías Hércules / Hercules Network of Ontologies – University of Murcia Specialization	http://purl.org/rohum#	https://github.com/HerculesCRUE/GnossDeustoOnto/tree/master/Documentation
skos	SKOS Simple Knowledge Organization System	http://www.w3.org/2004/02/skos/core#	https://www.w3.org/TR/2008/WD-skos-reference-20080829/skos.html
uneskos	SKOS UNESCO Thesaurus	http://purl.org/umu/uneskos#	https://skos.um.es/unescothes/downloads.php
vcard	vCard Ontology - for describing People and Organizations	http://purl.org/roh/mirror/vcard#	https://www.w3.org/TR/vcard-rdf/
vivo	VIVO core ontology	http://purl.org/roh/mirror/vivo#	https://wiki.lyrasis.org/display/VIVO/The+core+ontology+and+its+annotations

2. Concepts modelled

2.1. vivo:AcademicDegree

Prefix	Class	Prefix	Object property (bold indicates explicit Domain, otherwise a Restriction)	Range Class	Prefix	Datatype Property (bold indicates explicit domain; otherwise a restriction)	Range Datatype (if typed)	Range values
vivo	**AcademicDegree**				vivo	abbreviation	rdfs:Literal	
					roh	title	xsd:string	

2.2. roh:Accreditation

Prefix	Class			Prefix	Object property (bold indicates explicit Domain, otherwise a Restriction)	Range Class	Prefix	Datatype Property (bold indicates explicit domain; otherwise a restriction)	Range Datatype (if typed)	Range values
roh	**Accreditation**			vivo	hasGoverningActivity	foaf:Organization	roh	title	xsd:string	
				vivo	hasSubjectArea	owl:Thing	vivo	description	xsd:string	
				roh	accreditationOf	foaf:Agent				
				roh	issuedBy	roh:AccreditationIssuer				
				vivo	dateIssued	vivo:DateTimeValue				
	roh	AcademicAccreditation					roh	title	xsd:string	
		rohes	AyudanteDoctor							
		rohes	CatedraticoUniversidad							
		rohes	ContratadoDoctor							
		rohes	ProfesorUniversidadPrivada							
		rohes	TitularUniversidad							
	roh	Certificate					roh	title	xsd:string	
		roh	Award							
		roh	CourseCertificate							
		roh	LanguageCertificate					roh	**language**	xsd:string	
							roh	**listeningSkill**	xsd:string	{"A1" , "A2" , "B1" , "B2" , "C1" , "C2"}
							roh	**readingSkill**	xsd:string	{"A1" , "A2" , "B1" , "B2" , "C1" , "C2"}
							roh	**speakingSkill**	xsd:string	{"A1" , "A2" , "B1" , "B2" , "C1" , "C2"}

Prefix	Class			Prefix	Object property	Range Class	Prefix	Datatype Property	Range Datatype	Range values
							roh	**spokenInteractionSkill**	xsd:string	{"A1" , "A2" , "B1" , "B2" , "C1" , "C2"}
	roh	DegreeHomologation		vivo	relates	vivo:AwardedDegree				
	roh	License								
	roh	ResearchAccreditation								
		rohes	Sexenio	vivo	dateTimeInterval	vivo:DateTimeInterval				

2.3. rohes:Account

Prefix	Class			Prefix	Object property (bold indicates explicit Domain, otherwise a Restriction)	Range Class	Prefix	Datatype Property (bold indicates explicit domain; otherwise a restriction)	Range Datatype (if typed)	Range values
rohes	**Account**			rohes	**charges**	roh:Expense				
	rohes	ActivoNoCorriente								
		rohes	InmovilizacionesIntangibles							
		...								
	rohes	ComprasYGastosPorNaturaleza								
		rohes	Perdidas							
		rohes	ServiciosExteriores							
		...								
			rohes	Suministros						
			...							

2.4. roh:Activity

Prefix	Class			Prefix	Object property (bold indicates explicit Domain, otherwise a Restriction)	Range Class	Prefix	Datatype Property (bold indicates explicit domain; otherwise a restriction)	Range Datatype (if typed)	Range values
roh	**Activity**			roh	**participatedBy**	foaf:Agent	vivo	identifier	xsd:string	
				bibo	presents	bibo:Document	roh	description	xsd:string	
				vivo	relates	roh:Expense or obo-bfo:Role	vivo	freeTextKeyword	xsd:string	
				obo-bfo	realizes	obo-bfo:Role	vivo	contactInformation	rdfs:Literal	
				vivo	hasSubjectArea	skos:Concept	roh	title	xsd:string	
				vivo	dateTimeInterval	vivo:DateTimeInterval				
				gn	locatedIn	gn:Feature				
	vivo	Competition								
	bibo	Conference					vivo	abbreviation	rdfs:Literal	
	vivo	Course		obo-ro	partOf	vivo:AcademicDegree	vivo	**courseCredits**	xsd:int	
							vivo	**courseHours**	xsd:string	
	vivo	Exhibit								
	bibo	Hearing								
	vivo	Internship								
	vivo	Interview								
	vivo	Meeting								
	bibo	Performance								
	vivo	Presentation								
	vivo	InvitedTalk								
	roh	PanelTalk								

	Prefix	Class		
	roh	ThesisViva		
	bibo	Workshop		

2.5. foaf:Agent

Prefix	Class			Prefix	Object property (bold indicates explicit Domain, otherwise a Restriction)	Range Class	Prefix	Datatype Property (bold indicates explicit domain; otherwise a restriction)	Range Datatype (if typed)	Range values
foaf	**Agent**			roh	**hasContactInfo**	vcard:Organization	vivo	freeTextKeyword	xsd:string	
				roh	**hasAccreditation**	roh:Accreditation				
				roh	**hasRole**	obo-bfo:Role				
				foaf	**mBox**	owl:Thing				
				vivo	relatedBy	vivo:Relationship				
	foaf	**Organization**		roh	hasKnowledgeArea	skos:Concept	vivo	identifier	xsd:string	
				vivo	**affiliatedOrganization**	foaf:Organization	vivo	abbreviation	rdfs:Literal	
				vivo	**hasSuccessorOrganization**	foaf:Organization	roh	description	xsd:string	
				vivo	**hasPredecessorOrganization**	foaf:Organization	roh	researchLine	xsd:string	
				obo-ro	hasPart	foaf:Organization	roh	**foundationDate**	xsd:string	
				roh	hasInfrastructure	roh:Infastructure				
				foaf	homePage	foaf:Document				
				roh	participates	roh:Activity				
				roh	produces	roh:ResearchObject				
				roh	grantedBy	roh:FundingAmount				
				vivo	dateTimeInterval	vivo:DateTimeInterval				
				gn	locatedIn	gn:Feature				
		roh	AccreditationIssuer	roh	issues	roh:Accreditation				
		roh	FundingOrganization	roh	**promotes**	roh:FundingProgram or roh:FundingSource				
				roh	funds	roh:Funding				
		roh	ResearchGroup				roh	excellenceLabel	xsd:boolean	
	vivo	University		roh	**awards**	vivo:AwardedDegree				
	foaf	**Person**		roh	hasKnowledgeArea	skos:Concept	vivo	identifier	xsd:string	
				vivo	relates	vivo:AwardedDegree	vivo	**researcherId**		
				roh	spends	roh:PersonExpense	roh	birthdate	xsd:string	
				roh	hasContract	roh:PersonContract	vivo	**eRACommonsId**		
				roh	**hasCV**	roh:CurriculumVitae	roh	description	xsd:string	
				roh	**hasPosition**	vivo:Position	roh	**firstName**	xsd:string	
				roh	participates	roh:Activity	roh	gender	xsd:string	
				roh	elegibleFor	roh:Accreditation	roh	researchLine	xsd:string	
				foaf	homePage	foaf:Document	foaf	**surname**	xsd:string	
				foaf	**image**	foaf:Image	foaf	name	xsd:string	
				roh	**correspondingAuthor**		foaf	nickname	xsd:string	
				roh	**supervisorOf**	bibo:Thesis	roh	**taxID**	xsd:string	
							roh	title	xsd:string	
							roh	**ORCID**	xsd:string	
							vivo	**scopusId**		
							rohes	secondFamilyName	xsd:string	

2.6.   skos:Concept

Prefix	Class			Prefix	Object property (bold indicates explicit Domain, otherwise a Restriction)	Range Class	Prefix	Datatype Property (bold indicates explicit domain; otherwise a restriction)	Range Datatype (if typed)	Range values
skos	Concept			roh	knowledgeAreaOf					
	roh	KnowledgeArea								
		roh	UNESCOKnowledgeArea							
		rohes	FECYTKnowledgeArea							
	roh	ProjectClassification								
		roh	European							
		roh	International							
		roh	National							
			rohes	PlanEstatal2017-2020						
		roh	Own							
		roh	Regional							
	roh	HRClassification								
		roh	TrainingStaffPlacement							
		roh	TechnicalSupportStaffGrant							
		roh	Mobility							
		roh	PostDocContract							
		roh	PostDocGrant							
		roh	PostDocContinuityGrant							
		roh	PreDocContract							
		roh	PreDocGrant							
		roh	PreDocGrantContract							
		roh	ResearchStartGrant							

2.7.   roh:CurriculumVitae

Prefix	Class	Prefix	Object property (bold indicates explicit Domain, otherwise a Restriction)	Range Class	Prefix	Datatype Property (bold indicates explicit domain; otherwise a restriction)	Range Datatype (if typed)	Range values
roh	CurriculumVitae	roh	CVOf	foaf:Person	roh	cites	xsd:string	
					roh	factorH	xsd:string	
					roh	summary	xsd:string	

2.8.   roh:Expense

Prefix	Class		Prefix	Object property (bold indicates explicit Domain, otherwise a Restriction)	Range Class	Prefix	Datatype Property (bold indicates explicit domain; otherwise a restriction)	Range Datatype (if typed)	Range values
roh	Expense		roh	spentBy		roh	currency	xsd:string	
			vivo	dateTimeValue	vivo:DateTimeValue	vivo	description	xsd:string	
						roh	monetaryAmoung	xsd:float	
						roh	title	xsd:string	
	roh	PersonExpense				roh	expenseModality		
	roh	ProjectExpense							
	roh	ResearchObjectExpense							

Prefix	Class	Prefix	Class	Object property	Range Class	Prefix	Datatype Property	Range Datatype	Range values
		rohum	GastosCorrientesBienesYServicios						
		rohum	ArrendamientosYCanones						
		rohum	IndemizacionesServicio						
		rohum	MaterialSuministrosOtros						
		rohum	ReparacionesMantenimientoConservación						
		rohum	InversionesReales						

2.9. gn:Feature

Prefix	Class	Prefix	Object property (bold indicates explicit Domain, otherwise a Restriction)	Range Class	Prefix	Datatype Property (bold indicates explicit domain; otherwise a restriction)	Range Datatype (if typed)	Range values
gn	**Feature**	gn	**featureClass**		gn	geonamesID	rdfs:Literal	
		gn	featureCode	gn:Code	gn	countryCode	rdfs:Literal	
		gn	parentAMD1	gn:featureCode	gn	name	xsd:string	
		gn	parentAMD2	gn:featureCode	gn	population	xsd:integer	
		gn	parentAMD3	gn:featureCode				
		gn	parentAMD4	gn:featureCode				

2.10. roh:Funding, roh:FundingAmount, roh:FundingProgram & roh:FundingSource

Prefix	Class		Prefix	Object property (bold indicates explicit Domain, otherwise a Restriction)	Range Class	Prefix	Datatype Property (bold indicates explicit domain; otherwise a restriction)	Range Datatype (if typed)	Range values
roh	**Funding**		obo-ro	hasPart	roh:FundingAmount	vivo	identifier	xsd:string	
			roh	**fundedBy**	roh:FundingProgram	vivo	description		
			vivo	dateTimeInterval	vivo:DateTimeInterval	vivo	freeTextKeyword		
			roh	**financedBy**	roh:FundingSource	roh	**publicFunding**	xsd:boolean	
			roh	hasContract	vivo:Contract				
			roh	**supports**	roh:PersonContract or roh:Project				
			roh	hasKnowledgeArea	skos:Concept				
			vivo	dateTimeInterval	vivo:DateTimeInterval				
	roh	Grant							
	roh	Loan							
	roh	Outsourcing							
	roh	RefundableAdvance							
roh	**FundingAmount**		roh	**grants**	foaf:Organization	roh	currency	xsd:string	
			obo-ro	partOf	roh:Funding	roh	monetaryAmoung	xsd:float	
			vivo	dateTimeInterval	vivo:DateTimeInterval				
roh	**FundingProgram**		roh	**promotedBy**	roh:FundingSource	vivo	identifier	xsd:string	
			gn	locatedIn	gn:Feature	roh	title	xsd:string	
			vivo	dateTimeInterval	vivo:DateTimeInterval	vivo	description	xsd:string	
			obo-ro	hasPart	roh:FundingProgram				
roh	**FundingSource**		roh	**promotedBy**	vivo:FundingOrganization				
			roh	funds	roh:FundingProgram				

2.11. roh:Infrastructure

Prefix	Class		Prefix	Object property (bold indicates explicit Domain, otherwise a Restriction)	Range Class	Prefix	Datatype Property (bold indicates explicit domain; otherwise a restriction)	Range Datatype (if typed)	Range values
roh	Infrastructure		roh	infrastructureOf	foaf:Agent	roh	title	xsd:string	
						vivo	description	xsd:string	
	roh	Equipment				vivo	freeTextKeyword	xsd:string	
	roh	Facility	obo-ro	hasPart	roh:Facility				
	roh	Software	vivo	hasSubjectArea	skos:Concept				
			roh	correspondingAuthor	foaf:Person				

2.12. roh:Metric

Prefix	Class				Prefix	Object property (bold indicates explicit Domain, otherwise a Restriction)	Range Class	Prefix	Datatype Property (bold indicates explicit domain; otherwise a restriction)	Range Datatype (if typed)	Range values
roh	Metric				roh	metricOf	roh:ResearchObject	roh	metricName	xsd:string	
	roh	DegreeMetric									
		roh	ThesisMetric					roh	cumLaude	xsd:boolean	
								roh	mark	xsd:string	
			rohes	PhDThesisMetric				rohes	doctoradoEuropeo	xsd:boolean	
								rohes	doctoradoInternacional	xsd:boolean	
								rohes	mencionCalidad	xsd:boolean	
								rohes	premioExtraordinarioDoctorado	xsd:boolean	
	roh	PublicationMetric						roh	impactFactor	xsd:float	
								roh	quartile	xsd:string	{"Q1" , "Q2" , "Q3" , "Q4"}
								roh	ranking	xsd:string	

2.13. vivo:Project

Prefix	Class	Prefix	Object property (bold indicates explicit Domain, otherwise a Restriction)	Range Class	Prefix	Datatype Property (bold indicates explicit domain; otherwise a restriction)	Range Datatype (if typed)	Range values
vivo	Project	roh	hasKnowledgeArea	skos:Concept	vivo	identifier	xsd:string	
		vivo	relates	roh:Audit or obo-bfo:Role	vivo	abbreviation	rdfs:Literal	
		roh	hasContract	vivo:ProjectContract	vivo	description	rdfs:Literal	
		obo-ro	hasPart	vivo:Project	roh	title	xsd:string	
		vivo	participates	roh:Activity	roh	projectStatus	xsd:string	{"CLOSED" , "OPEN" , "PROPOSAL_SUBMITTED" , "REJECTED "}
		roh	spends	roh:ProjectExpense	vivo	freeTextKeyword	xsd:string	
		roh	produces	roh:ResearchObject	roh	modality	xsd:string	
		vivo	relatedBy	roh:Dossier or roh:Justification or obo-bfo:Role	roh	foreseenJustificationDate	xsd:dateTime	
		roh	isSupportedBy	roh:Funding	roh	needsEthicalValidation	xsd:boolean	
		gn	locatedIn	gn:Feature				
		vivo	dateTimeInterval	vivo:DateTimeInterval				
		roh	hasProjectCategorization	roh:ProjectClassification				

Prefix	Class	Prefix	Object property (bold indicates explicit Domain, otherwise a Restriction)	Range Class	Prefix	Datatype Property (bold indicates explicit domain; otherwise a restriction)	Range Datatype (if typed)	Range values
		roh	**hasHRClassification**	roh:HRClassification				

2.14. vivo:Relationship

Prefix	Class	Prefix	Object property (bold indicates explicit Domain, otherwise a Restriction)	Range Class	Prefix	Datatype Property (bold indicates explicit domain; otherwise a restriction)	Range Datatype (if typed)	Range values
vivo	Relationship							
	vivo AdvisingRelationship	vivo	dateTimeInterval	vivo:DateTimeInterval				
		vivo	hasSubjectArea	skos:Concept				
		vivo	relates	vivo:AdvisorRole or vivo:AdviseeRole or foaf:Person				
		vivo	**degreeCandidacy**	vivo:AcademicDegree				
	vivo AwardedDegree	roh	**awardedBy**	vivo:University				
		vivo	relates	foaf:Person or roh:AcademicDegree				
		vivo	dateTimeValue	vivo:DateTimeValue				
	vivo Contract	roh	**contractOf**		bibo	abstract	xsd:string	
		roh	**contractSigningDate**	vivo:DateTimeValue	roh	fileURI		
		vivo	assignedBy	foaf:Organization	roh	attachment	owl:Thing	
		vivo	hasSubjectArea	skos:Concept				
		vivo	relates	roh:Funding or bibo:Patent or foaf:Agent or obo-bfo:Role				
		vivo	dateTimeInterval	vivo:DateTimeInterval				
		vivo	supportedInformationResource	obo-iao:InfrormationContentEntity				
	roh PersonContract	roh	**hasHRClassification**	roh:HRClassification				
	roh ProjectContract							
	vivo Position	vivo	relates	foaf:Organization	vivo	rank	xsd:int	
		vivo	relates	foaf:Person	vivo	**hrJobTitle**		
		vivo	dateTimeInterval	vivo:DateTimeInterval				
	vivo FacultyAdministrativePosition							
	vivo FacultyPosition							
	rohes CuerpoDocente							
	rohes: CatedraticoEscuelaUniversitaria							
	rohes: CatedraticoDeUniversidad							
	rohes: ProfesorTitularDeEscuelaUniversitaria							
	rohes: ProfesorTitularDeUniversidad							
	rohes PDIContratado							
	rohes: Ayudante							
	rohes: ProfesorAsociado							
	rohes: ProfesorAyudanteDoctor							
	rohes: ProfesorContratadoDoctor							
	rohes: ProfesorEmerito							
	rohes: ProfesorVisitante							
	vivo LibrarianPosition	roh	produces	roh:DegreeThesis				

Prefix	Class			Prefix	Object property	Range Class	Prefix	Datatype Property	Range Datatype	Range values
		vivo	NonAcademicPosition							
		vivo	NonFacultyAcademicPosition							
		vivo	PrimaryPosition							
		roh	ResearcherPosition							
	roh	SupervisingRelationship		vivo	dateTimeInterval	vivo:DateTimeInterval				
				roh	produces	roh:Thesis				
				vivo	relates	roh:SupervisorRole or roh:SuperviseeRole or foaf:Person				
		roh	DegreeSupervisingRelationship	roh	produces	roh:DegreeThesis				
		roh	MasterSupervisingRelationship	roh	produces	roh:MasterThesis				
		roh	PhDSupervisingRelationship	roh	produces	roh:PhDThesis				

2.15.   roh:ResearchObject

Prefix	Class			Prefix	Object property (bold indicates explicit Domain, otherwise a Restriction)	Range Class	Prefix	Datatype Property (bold indicates explicit domain; otherwise a restriction)	Range Datatype (if typed)	Range values
roh	ResearchObject			roh	hasKnowledgeArea	skos:Concept				
				roh	correspondingAuthor	foaf:Person				
				roh	**producedBy**	roh:Project				
	bibo	Collection					bibo	oclcnum	rdfs:Literal	
		roh	Dossier	vivo	relates	roh:ProjectContract or bibo:Report or roh:Project	vivo	identifier	xsd:string	
				vivo	dateTimeInterval	vivo:DateTimeInterval	roh	title		
							vivo	description		
		bibo	Periodical	vivo	publisher	foaf:Organization	bibo	eissn	rdfs:Literal	
							bibo	issn	rdfs:Literal	
			bibo Journal	vivo	dateIssued	vivo:DateTimeValue	vivo	abbreviation	rdfs:Literal	
			bibo Magazine							
	bibo	Document		vivo	publishedIn	bibo:Collection or bibo:Book	bibo	doi	xsd:string	
				bibo	**authorList**	rdf:Seq	bibo	abstract	xsd:string	
				vivo	dateIssued	vivo:DateTimeValue	bibo	**pageStart**		
				bibo	**editorList**	rdf:Seq	bibo	**pageEnd**		
							bibo	**volume**	rdfs:Literal	
		bibo	Abstract							
		bibo	Article				bibo	issue		
			bibo AcademicArticle							
			obo-iao:JournalArticle	roh	**hasMetric**	roh:PublicationMetric				
			vivo ConferencePaper	bibo	presentedAt	bibo:Conference				
			roh:WorkshopPaper							
			vivo EditorialArticle							
		bibo	Book	vivo	publisher	foaf:Organization	bibo	edition	rdfs:Literal	
							bibo	isbn	rdfs:Literal	
							vivo	placeOfPublication	rdfs:Literal	
							bibo	iccn	rdfs:Literal	
			bibo Proceedings							
		bibo	ConferencePoster							
		bibo	Dataset	cito	isCitedAsDataSourceBy	foaf:Document				
		bibo	DocumentPart	vivo	publisher	foaf:Organization	vivo	placeOfPublication	rdfs:Literal	

Prefix	Class	Prefix	Class	Subclass	Prefix	Object property	Range Class	Prefix	Datatype Property	Range Datatype	Range values
		bibo	**BookSection**								
				bibo: Chapter							
		bibo	**Patent**		vivo	publisher	foaf:Organization	vivo	identifier	xsd:string	
					gn	locatedIn	gn:Feature	roh	modality	xsd:string	
					vivo	dateIssued	vivo:DateTimeValue				
					roh	**ownerOrganization**	foaf:Organization				
		bibo	**Report**		vivo	distributor	foaf:Organization	roh	**status**	xsd:string	{"ACCEPTED", "REJECTED"}
					vivo	publisher	foaf:Organization				
			roh	**EthicalReport**							
				roh: EthicalAudit							
				roh: EthicalValidation							
			roh	**EvaluationSummary**				roh	EvaluationStatus	xsd:string	{"FINAL", "PROVISIONAL"}
			roh	**Justification**	vivo	relates	roh:Project				
			roh	**ResearchProposal**	vivo	relates	roh:Justification or roh:ProjectContract or roh:Project or roh:ResearchProposal				
		bibo	**Thesis**					vivo	abbreviation	rdfs:Literal	
								vivo	placeOfPublication	rdfs:Literal	
			roh	**DegreeThesis**							
			roh	**MasterThesis**							
			roh	**PhDThesis**							
		bibo	**Webpage**								

2.16. obo-bfo:Role

Prefix	Class	Prefix	Class	Prefix	Object property (bold indicates explicit Domain, otherwise a Restriction)	Range Class	Prefix	Datatype Property (bold indicates explicit domain; otherwise a restriction)	Range Datatype (if typed)	Range values
obo-bfo	Role			vivo	dateTimeInterval	vivo:DateTimeInterval	roh	**dedication**	xsd:string	{"PARTIAL", "TOTAL"}
				roh	inheresIn	foaf:Agent	vivo	description	xsd:string	
				vivo	relatedBy	roh:Project or vivo:Relationship				
				roh	hasKnowledgeArea	skos:Concept				
				obo-bfo	realizedIn	roh:Activity				
				roh	**roleOf**	foaf:Agent				
		vivo	AdministratorRole							
		vivo	AdviseeRole							
		vivo	AdvisorRole							
		vivo	AttendeeRole							
		vivo	AuditeeRole							
		vivo	AuditorRole							
		vivo	EditorRole							
		vivo	EducatorRole							
		vivo	EmployeeRole							
		vivo	ExternalMemberRole							
		vivo	FundingRole							
		vivo	LeaderRole							
		vivo	MemberRole							
		vivo	OrganizerRole							

	vivo	PresenterRole							
	vivo	ResearcherRole							
	vivo	ReviewerRole							
	vivo	StudentRole							
	vivo	SuperviseeRole							
	vivo	SupervisorRole							
	vivo	TeacherRole							
	vivo	ThirdPartyContractorRole							

2.17. obo-ero:Service

Prefix	Class		Prefix	Object property (bold indicates explicit Domain, otherwise a Restriction)	Range Class	Prefix	Datatype Property (bold indicates explicit domain; otherwise a restriction)	Range Datatype (if typed)	Range values
obo-ero	Service		roh	isProvidedBy	foaf:Organization	vivo	identifier	xsd:string	
						roh	title	xsd:string	
						vivo	description	xsd:string	
	vivo	AccessService							
	vivo	AnalysisService							
	roh	ExternalMemberRole							
	vivo	…							

2.18. rohes:Tax

Prefix	Class		Prefix	Object property (bold indicates explicit Domain, otherwise a Restriction)	Range Class	Prefix	Datatype Property (bold indicates explicit domain; otherwise a restriction)	Range Datatype (if typed)	Range values
rohes	Tax					rohes	rate	xsd:float	
	rohes	IVA							
	rohes	IRPF							
	rohes	IRNR							

2.19. obo-bfo:TemporalRegion

Prefix	Class			Prefix	Object property (bold indicates explicit Domain, otherwise a Restriction)	Range Class	Prefix	Datatype Property (bold indicates explicit domain; otherwise a restriction)	Range Datatype (if typed)	Range values
obo-bfo	TemporalRegion									
	obo-bfo	OneDimensionalTemporalRegion								
		vivo	DateTimeInterval	vivo	start	vivo:DateTimeValue				
				vivo	end	vivo:DateTimeValue				
	obo-bfo	ZeroDimensionTemporalRegion								
		vivo	DateTimeValue				vivo	dateTime	xsd:dateTime	

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