Podiumkunst.net: connecting music and other performing arts collections with the RDA Ontology

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podium kunst .net

Polifonia Stakeholder Network Day
Tuesday, 20 September 2022

Podiumkunst.net

Vision
Enable the performing arts sector in the Netherlands to share their digital collections and stimulate reuse

In 2025

- Podiumkunst.net is the network for the performing arts sector in the Netherlands
- large, medium and small cultural performing arts institutions and archives are digitally connected
- the target user groups know where to find the collections and are inspired by them
- the performing arts, heritage and design sector contribute to the *National Strategy Digital Heritage*

Activities

1. Support the network and help it grow

Bring parties together and initiate collaboration projects.

2. Develop shared services

Work on an infrastructure for connecting collections.

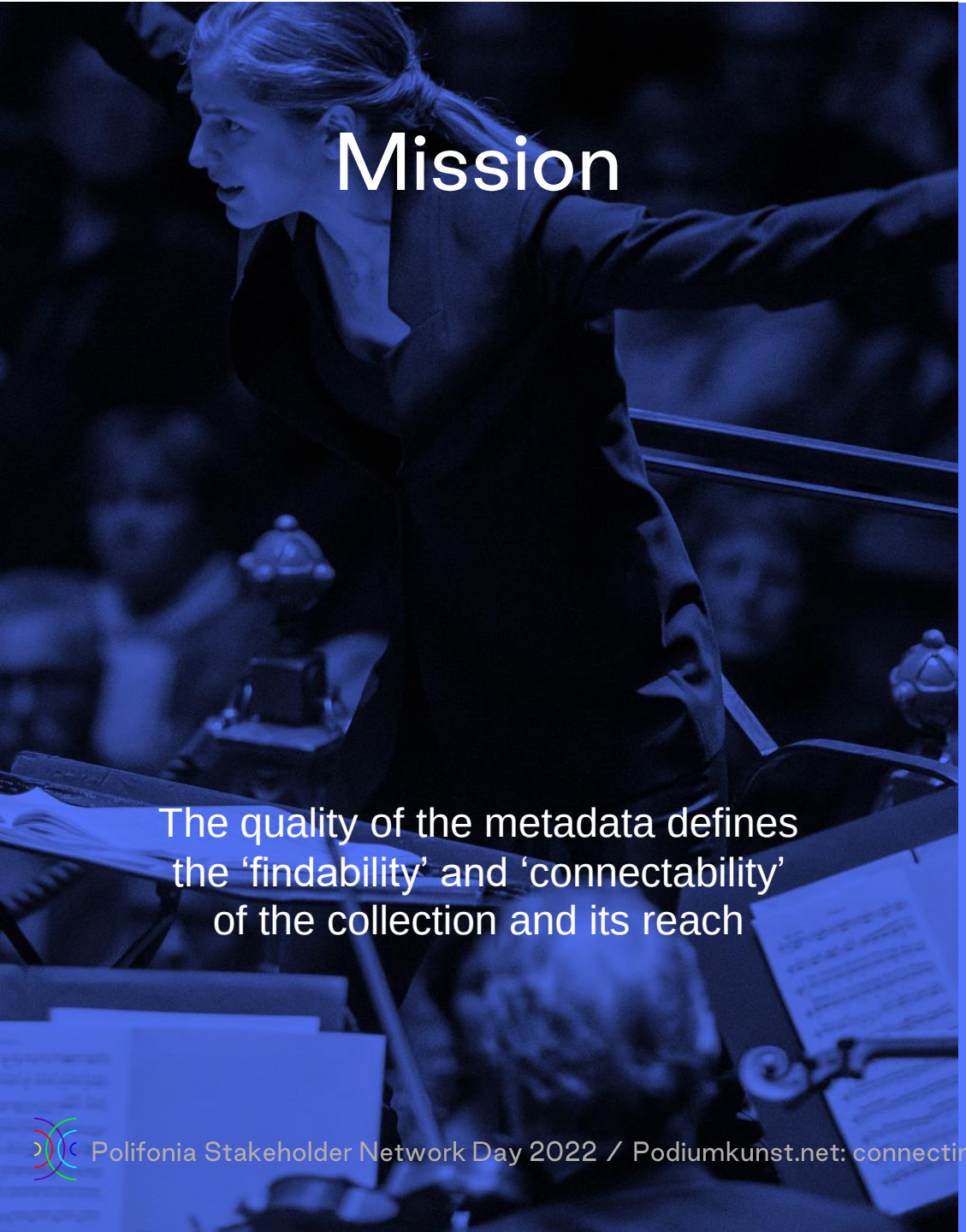
3. Increase expertise

Facilitate courses, together with partners such as Netwerk Digitaal Erfgoed* (NDE), Netwerk Archieven en Digitale Architectuur** (NADD) and DEN Kennisinstituut cultuur & digitale transformatie***.

4. Stimulate creative reuse

Work towards new stories and storytelling with creators.

* Network Digital Heritage
** Network Archives and Digital Architecture
*** Knowledge institute culture & digital transformation



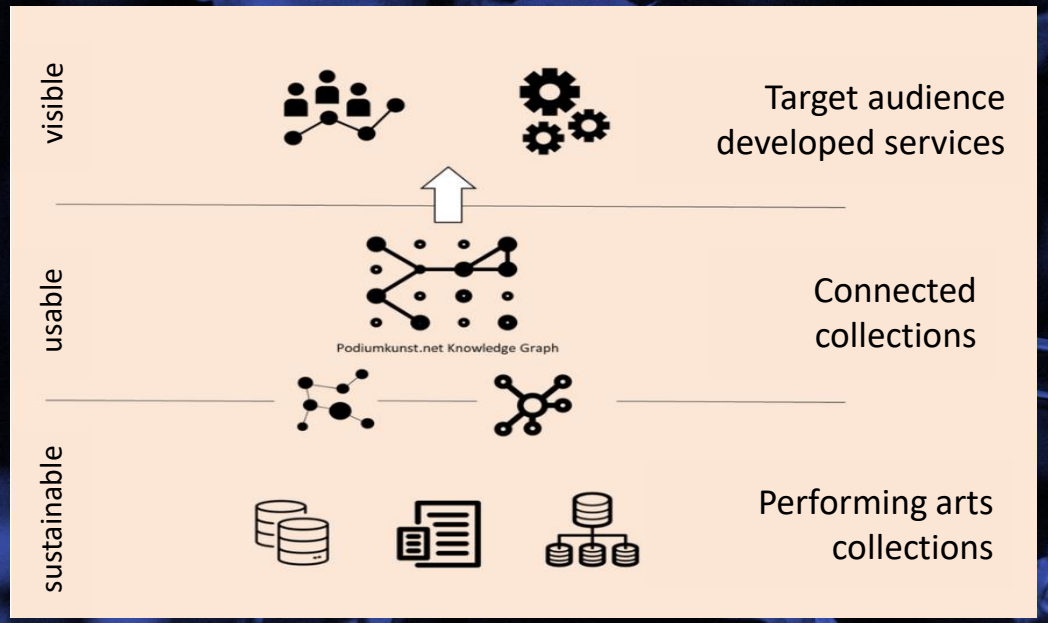
Mission

The quality of the metadata defines the ‘findability’ and ‘connectability’ of the collection and its reach

- **Podiumkunst.net is being developed jointly with the performing arts institutions and archives**
- **Podiumkunst.net connects collections semantically by relating metadata fields to open terminology systems**
- **Podiumkunst.net connects collections at resource level through sustainable identifiers**
- **Podiumkunst.net applies open source and open standards where possible**
- **Podiumkunst.net connects collections using a metadata model based on IFLA-LRM/RDA-ontology**

- Podiumkunst.net connects collections of varying maturity
- Podiumkunst.net makes collection items accessible through the facilities of the collection managing institutions
- Podiumkunst.net encourages collections to refer as much as possible to authoritative sources
- Podiumkunst.net seeks connection with current and planned initiatives at the performing arts institutions and archives

Sustainable, Usable, Visible



Ambition Metadata Workgroup:

Publishing the (bibliographic) metadata sets of current (legacy) and future consortium partners within the domain, establishing mutual relationships and connecting with external data sets for the benefit of creators, researchers and the general public.

Podiumkunst.net is developing a knowledge graph which provides the basis for the connection of all collections in the performing arts area -> “usable” layer / Connected Collections

IFLA/LRM User tasks

- *FIND*
  A user task that is to bring together information about one or more RDA entities of interest by searching on any relevant criteria.
- *IDENTIFY*
  A user task that is to clearly understand the nature of RDA entities found by searching and to distinguish between similar entities.
- *SELECT*
  A user task that is to determine the suitability of RDA entities found by searching, and to be enabled to either accept or reject specific entities.
- *OBTAIN*
  A user task that is to access the content of an RDA manifestation.
- *EXPLORE*
  A user task that is to discover RDA entities using the relationships between them and thus place the entities in a context.

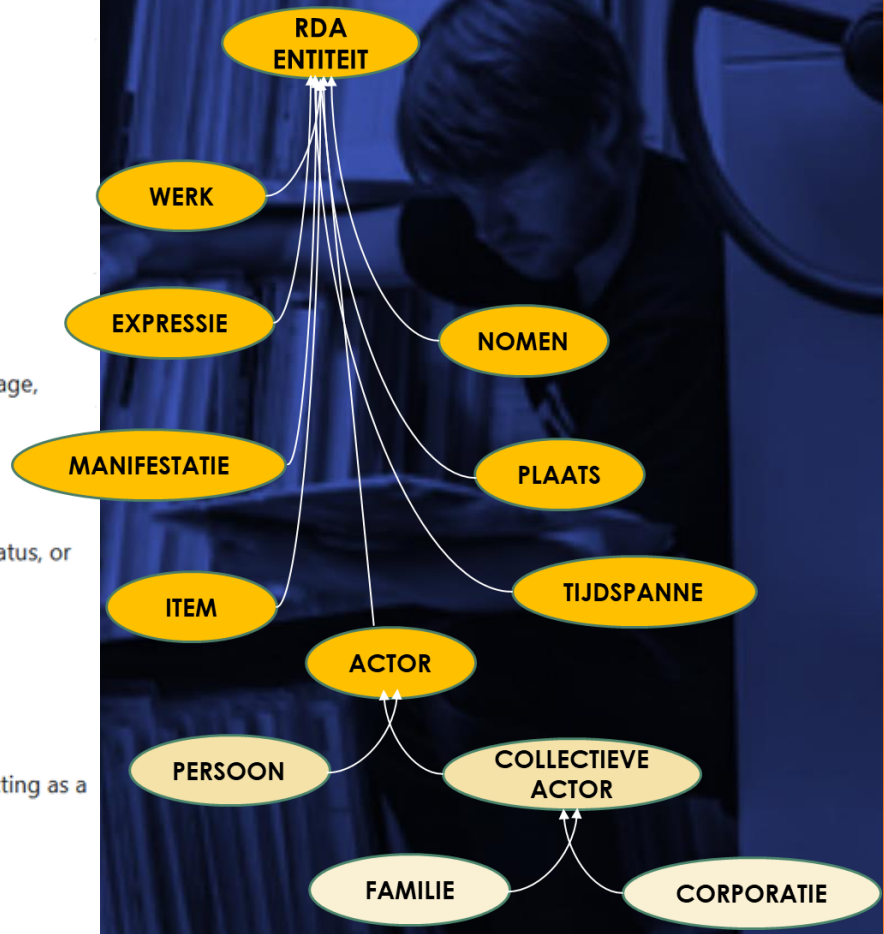
Why RDA?

- Very comprehensive, well-thought-out, consistent ontology
- Specially developed for the library and heritage sectors, with the user in mind
- Based on the LRM Ontology it is developed by an authoritative, international organization (IFLA)
  - reliable, sustainable maintenance partner (RDA Steering Committee)
  - expertise, knowledge sharing
  - accessibile and open to suggestions from within specialized domains
- the relationships defined within the ontology vary from very abstract to very concrete
- WEMI structure provides for uniting different manifestations of the same work (*clustering*) and for adequate identification thereof
- Very well documented, in line with the practice of cataloguing and multilingual (including Dutch!)
- The Dutch Royal National Library (KB) has made the choice for the RDA ontology – but also for *schema.org* – in the process of publishing the National Bibliography as linked open data.

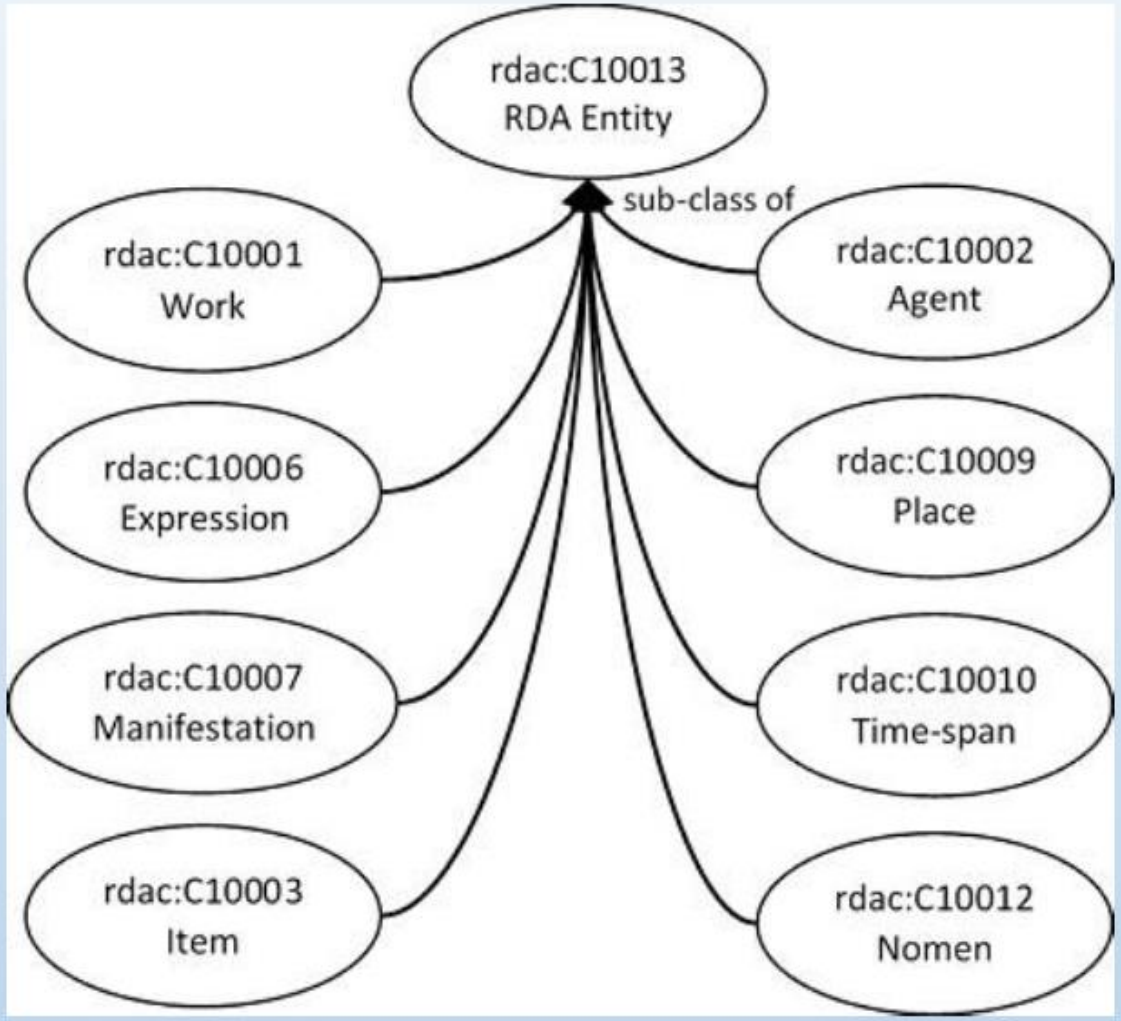
Challenge: rather limited knowledge and practice of RDA in the Netherlands

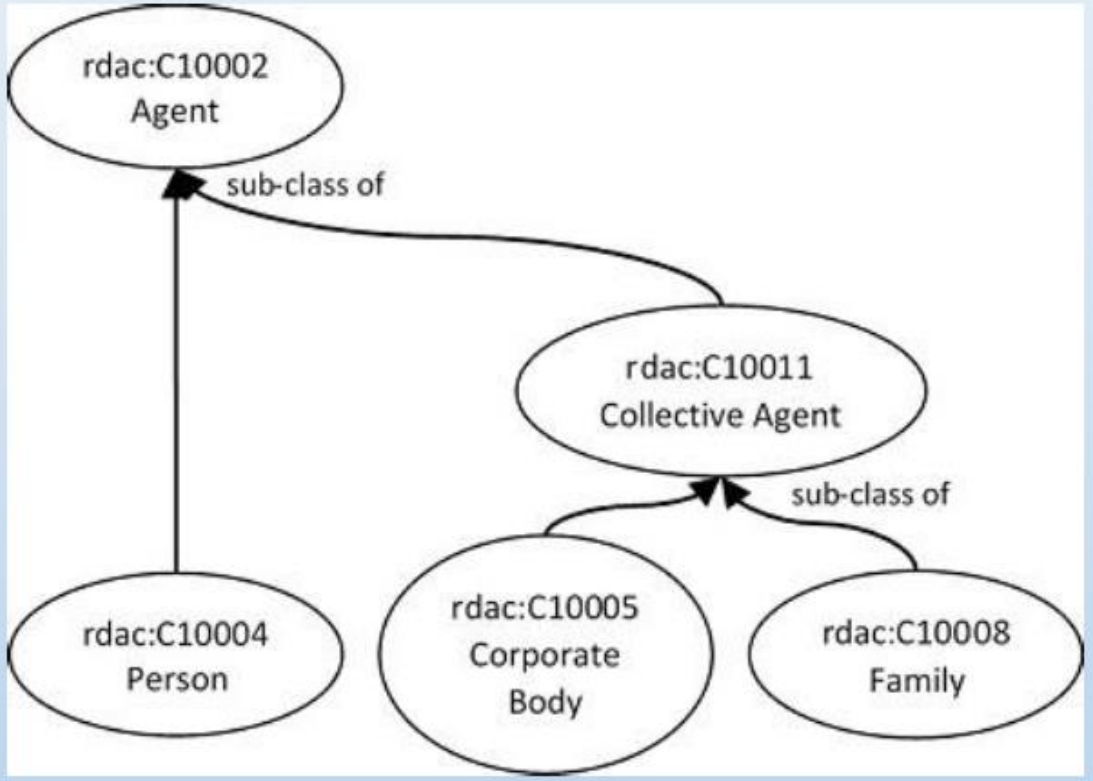
Entities within the RDA-ontology
(based on IFLA/LRM)

CURIE	Label	Definition
rdac:C10001	**"work"**	"A distinct intellectual or artistic creation, that is, the intellectual or artistic content."
rdac:C10002	**"agent"**	"An entity who is capable of deliberate actions, of being granted rights, and of being held accountable for its actions."
rdac:C10003	**"item"**	"A single exemplar or instance of a manifestation."
rdac:C10004	**"person"**	"An agent who is an individual human being who lives or is assumed to have lived."
rdac:C10005	**"corporate body"**	"A collective agent who is composed of persons who are organized for a common purpose or activity."
rdac:C10006	**"expression"**	"An intellectual or artistic realization of a work in the form of alpha-numeric, musical or choreographic notation, sound, image, object, movement, etc., or any combination of such forms."
rdac:C10007	**"manifestation"**	"A physical embodiment of an expression of a work."
rdac:C10008	**"family"**	"A collective agent who is composed of persons who are related by birth, marriage, adoption, civil union, or similar legal status, or who otherwise present themselves as a family."
rdac:C10009	**"place"**	"A given extent of space."
rdac:C10010	**"timespan"**	"A finite period of time."
rdac:C10011	**"collective agent"**	"An agent who is a gathering or organization of two or more persons that bears a particular name and that is capable of acting as a unit."
rdac:C10012	**"nomen"**	"A label for any RDA entity except a nomen."
rdac:C10013	**"RDA entity"**	"An abstract class of key conceptual objects in the universe of human discourse that are a focus of interest to users of RDA metadata in a system for resource discovery."

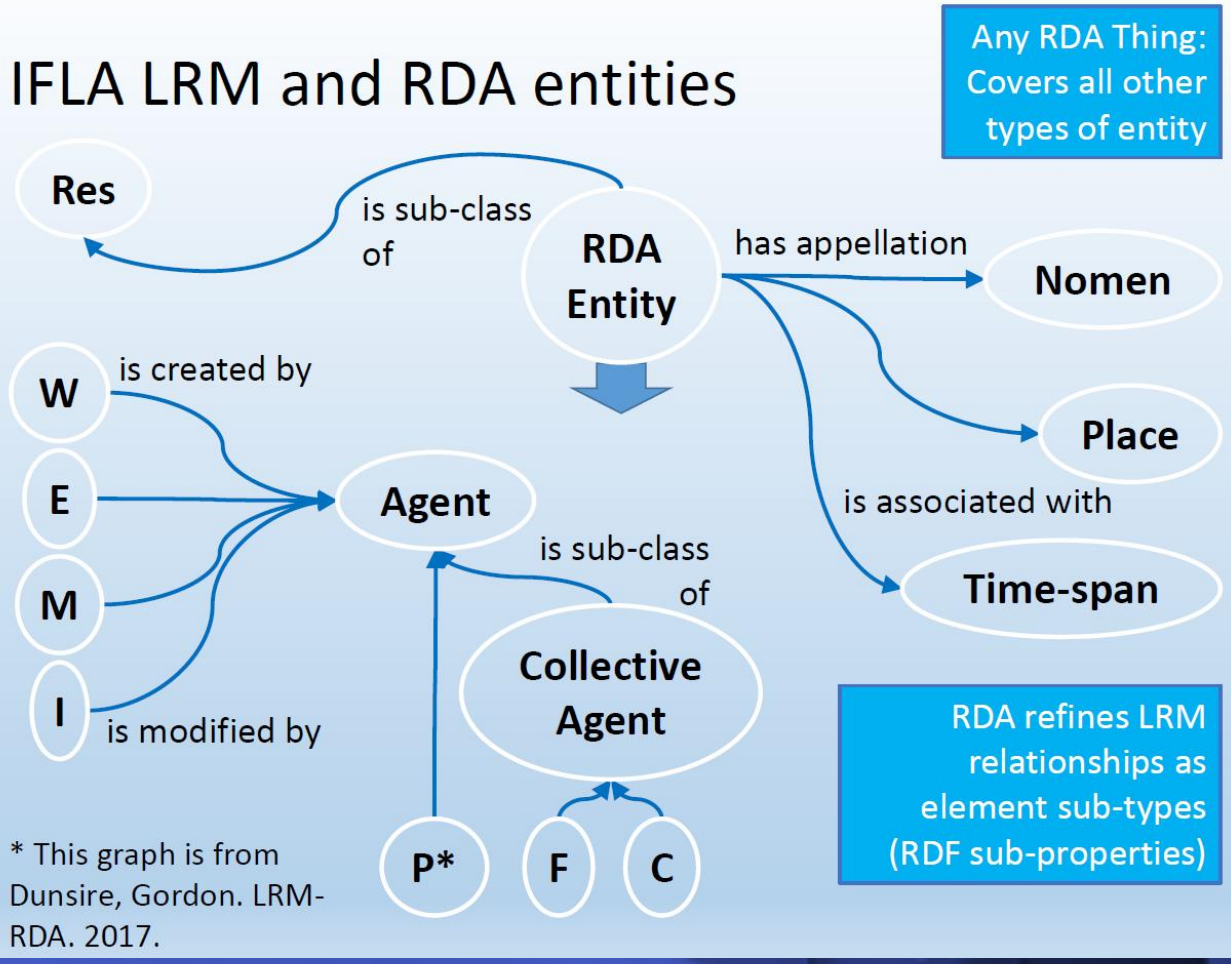


RDF Graph for RDA Class Hierarchies



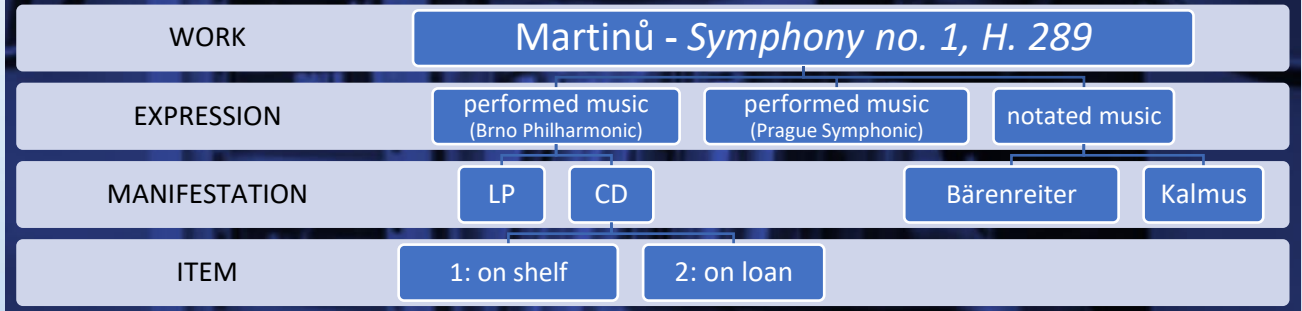


IFLA LRM and RDA entities

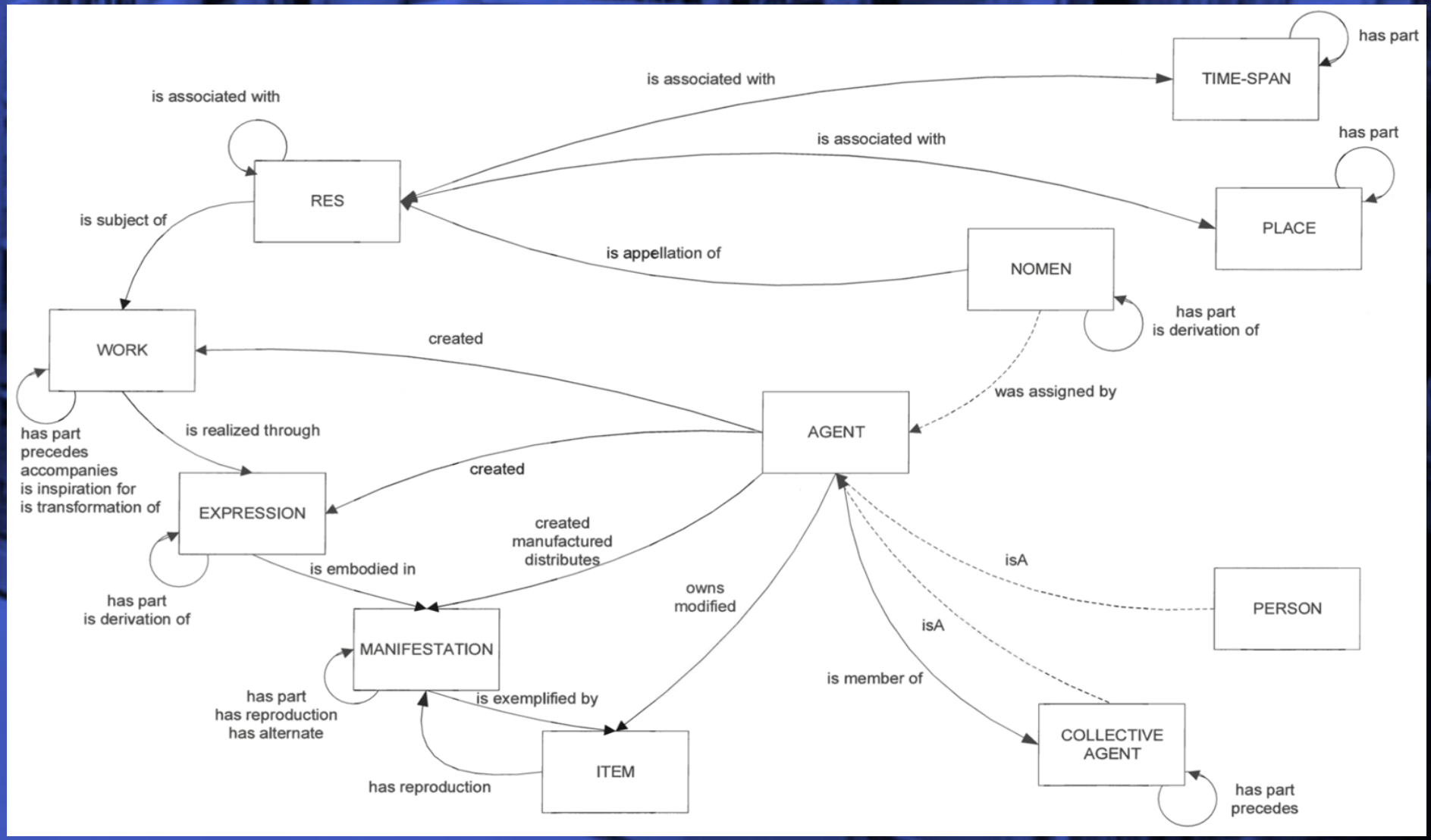


* This graph is from Dunsire, Gordon. LRM-RDA. 2017.

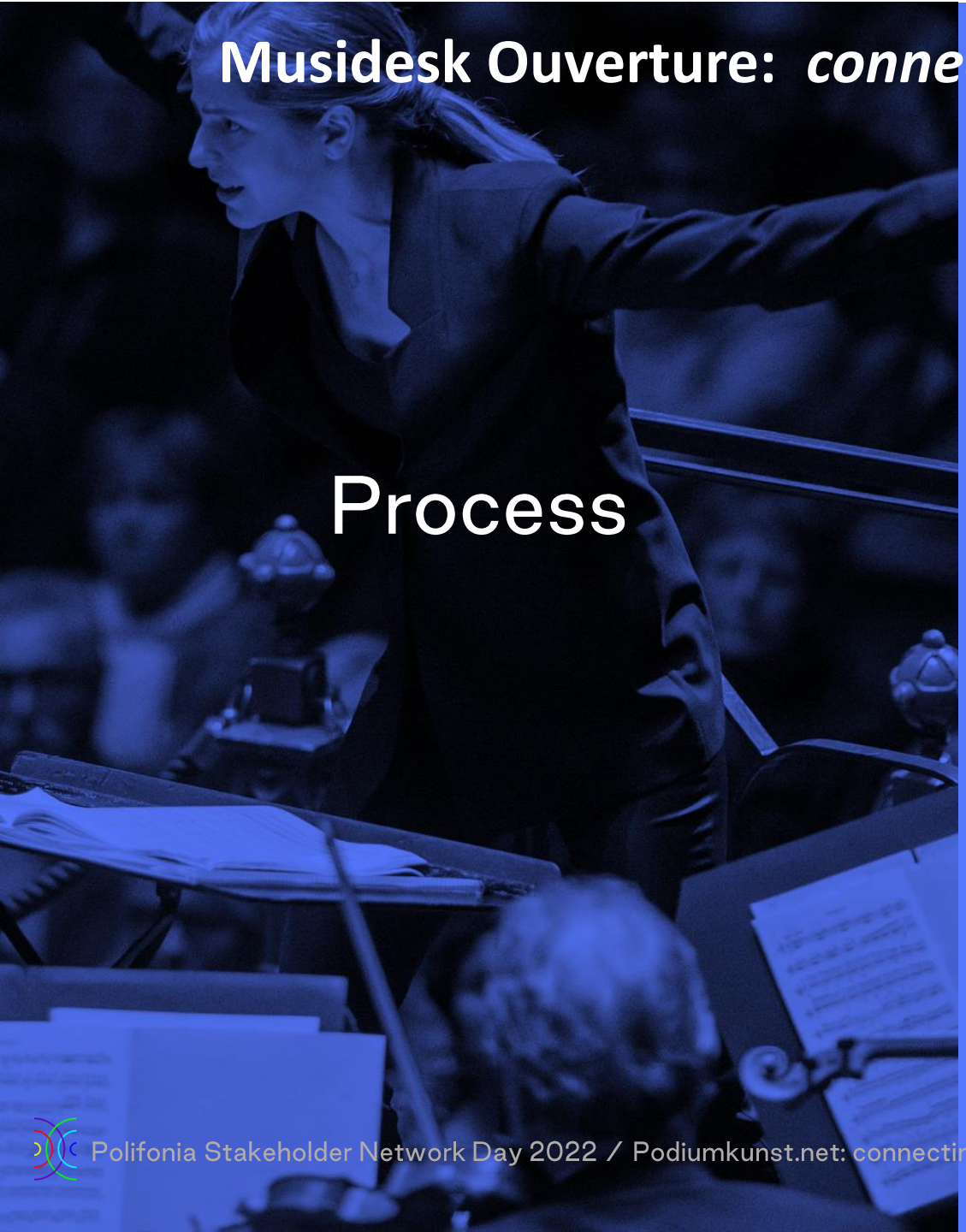
WEMI-structure



PKnet LRM/RDA model



Musidesk Ouverture: *connecting Musidesk to Podiumkunst.net*



Process

- obtaining the metadata
- figuring out its structure
- judging (and possibly improving) its quality
- getting to know and using the RDA registry and Toolkit
- mapping fields to the matching RDA properties
- converting the metadata
- visualising the resulting WEMI-structure with the RDA Entity Finder of the Royal Library
- publishing a generic workflow (lessons learned, application profile and policy statements)

RDA Registry: *music related properties (selection)*

RDA Registry | Elements | Values | Data | Tools | About | GitHub Project | RDA Toolkit

Properties Index

http://www.rdaregistry.info/

Search: music

#	CURIE	Label	Definition	Status
#	rdam:P30065	**"has publisher number for notated music"**	"Relates a manifestation to a nomen that is an identifier for manifestation other than a plate number for notated music, assigned by a publisher to a manifestation of a notated music expression."	Published
#	rdam:P30066	**"has plate number for notated music"**	"Relates a manifestation to a nomen that is an identifier for manifestation other than a publisher number for notated music, assigned by a publisher to a manifestation of a notated music expression to indicate the printing plate used in the printing process."	Published
#	rdam:P30078	**"has printer agent"**	"Relates a manifestation to an agent who is responsible for manufacturing a manifestation of printed text, notated music, or other content from type or plates."	Published
#	rdam:P30178	**"has extent of notated music (Deprecated)"**	"undefined" [@en; no @en]	Deprecated
#	rdam:P30311	**"has contributor agent of music"**	"Relates a manifestation to an agent who is a contributor to aggregate who creates an expression of a musical work that is embodied by an aggregate."	Published
#	rdam:P30341	**"has contributor person of music"**	"Relates a manifestation to a person who is a contributor to aggregate who creates an expression of a musical work that is embodied by an aggregate."	Published
#	rdam:P30358	**"has printer person"**	"Relates a manifestation to a person who is responsible for manufacturing a manifestation of printed text, notated music, or other content from type or plates."	Published
#	rdam:P30370	**"has contributor collective agent of music"**	"Relates a manifestation to a collective agent who is a contributor to aggregate who creates an expression of a musical work that is embodied by an aggregate."	Published
#	rdam:P30387	**"has printer collective agent"**	"Relates a manifestation to a collective agent who is responsible for manufacturing a manifestation of printed text, notated music, or other content from type or plates."	Published
#	rdam:P30399	**"has contributor corporate body of music"**	"Relates a manifestation to a corporate body who is a contributor to aggregate who creates an expression of a musical work that is embodied by an aggregate."	Published

Musidesk Ouverture: *mapping document*

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Fieldcode	Fieldlabel	Value	Data-analysis?	Repeatable	Fieldtype	Validation?	CURIE		recording method	Domain	Range	Vocabulary (LOD)
R17001	Ext. Nummer (bv. PPN)	434907685		no	numerical	yes						
R02001	Pmateriaal	HI |I orkest bladmuziek		no	alfanumerical	yes	m/P30335	has category of manifestation				
R10001	Pub. Jaar	2015		no	numerical		m/P30011	has date of publication	structured	manifestation	time span	
R39001	Land van publicatie	BE |I België		no	tekst	yes	m/P30279	has place of manifestation	IRI	manifestation	place	
R18001	Presentatiesoort	O |I orkestbladmuziek		no	tekst	yes						
R30001	Leesniveau	3 |I Graad 3 HAFA		no	alfanumerical	ye	m/P30305	has intended audience of manifestation	u/s/i/iri	manifestation		
R57001	bron	G |I GGC		no	tekst	yes						
RU00100	Uitgave	Wiekevorst : BVT Music, [2015?], ©2015	yes	no	alfanumerical	no	m/P30088	has place of publication	IRI	manifestation	place	
	plaats van uitgave	Wiekevorst, België					m/P30088	has place of publication	unstructured	manifestation	place	
	uitgever	BVT Music					m/P30176	has name of publisher	unstructured	manifestation	nomen	
							m/P30083	has publisher agent	u/s/i/iri	manifestation	actor	
	jaar van uitgave	[2015?]					m/P30011	has date of publication	unstructured	manifestation	time span	
	jaar van copyright	©2015					m/P30007	has copyright date	u/s/i/iri	manifestation	time span	
TS00100	Componist/Artiest Primair	419824669 [Hazo, Samuel] en niet 98672039 [Hazo, Samuel R.]		ja	alfanumerical	yes	w/P10442	has composer person of work	u/s/i/iri	work	person	http://data.bibliotheken.nl/id/thes/p419824669
TS00200	Corporatie Primair			ja	alfanumerical	yes						
TS0100010	Arrangeur Secundair	43089378 [Van Giel, Kevin]		ja	alfanumerical	yes	e/P20365	has arranger person of music	u/s/i/iri	expression	person	http://data.bibliotheken.nl/id/thes/p430893787
TS02100				ja	alfanumerical	yes						
TS01100	Medewerker Secundair			ja	alfanumerical	yes						
TX00100	Zoektitel (Title proper)	Perthshire majesty		ja	alfanumerical		m/P30156	has title proper	u/i/iri	manifestation	nomen	
		/ Samuel Hazo ; arr. Kevin van Giel										
		Samuel Hazo					m/P30105	has statement of responsibility	unstructured	manifestation		
		arr. Kevin van Giel					m/P30105	has statement of responsibility	unstructured	manifestation		
RC00100	Collatie	1 partituur Full score (9 pagina's) ; 30 cm + 65 partijen	yes	no	alfanumerical	no						
		1 partituur Full score (9 pagina's)					m/P30182	has extent of manifestation	structured	manifestation		
		65 partijen					m/P30182	has extent of manifestation	structured	manifestation		
		partituur [=*rdafnm:1007*]	yes				e/P20209	has format of notated music	iri	expression		http://www.rdaregistry.info/termList/formatNoteMus
		partijen [=*rdafnm:1004*]					e/P20209	has format of notated music	iri	expression		http://www.rdaregistry.info/termList/formatNoteMus
		30 cm					m/P30169	has dimensions	unstructured	manifestation		
		$aband$bnc$2rdacarrier/dut					m/P30001	has carrier type	iri	manifestation		http://www.rdaregistry.info/termList/RDACarrierType
RJ00100	Specificaties	Graad 3. - Tijdsduur: 4:30 min	yes	no	alfanumerical	no						
		Tijdsduur: 4:30 min					e/P20219	has duration	u/s	expression		
RF00100	Noot	Toelichting in het Nederlands en Engels. - Voor fanfareorkest	yes	no	alfanumerical	no						
		Voor fanfareorkest					m/P30137	has note on manifestation	unstructured	manifestation		

Musidesk Ouverture: *visualisation of first conversion*
wEmi: Expression level

Work #1: Perthshire majesty - 419824669 ; Hazo, Samuel R. — Details tonen | Expressies inklappen

Expression #1: muzieknotatie, 430893787 _SEP_ Van Giel, Kevin, Perthshire majesty — Details inklappen | Manifestaties tonen

has content type: notated music

has medium of performance of musical content: Fanfareorkest

has title of expression: Perthshire majesty

has authorized access point for expression: \W1\419824669#hazo\\W3\perthshire majesty\\E1\rdaco:1010\\E2\Fanfare\\E3\van giel\

has intended audience of expression: 3e divisie

has arranger person of music: 430893787

has arranger person of music: Van Giel, Kevin

PPN: 434907685

Expression #2: muzieknotatie, , Perthshire majesty — Details inklappen | Manifestaties tonen

has content type: notated music

has medium of performance of musical content: Harmonieorkest

has title of expression: Perthshire majesty

has authorized access point for expression: \W1\419824669#hazo\\W3\perthshire majesty\\E1\rdaco:1010\\E2\Harmonie\

has intended audience of expression: 3e divisie

PPN: 419824650

Musidesk Ouverture: *visualisation of first conversion*
weMi: Manifestation level

Manifestation #1: Boosey & Hawkes, 2004, band	Details inklappen	Items tonen
has carrier type: volume		
has media type: unmediated		
has mode of issuance: single unit		
has copyright date: 2004		
has date of publication: 2004		
has place of publication: London		
has statement of responsibility relating to title proper: Samuel R. Hazo		
has note on manifestation: Master level. - Met programmatoelichting en biografie in het Engels		
has title proper: Perthshire majesty		
has name of publisher: Boosey & Hawkes		
has extent of manifestation: 1 partituur Full score (11 pagina's)		
has extent of manifestation: 77 partijen		
has place of manifestation: United Kingdom		
has authorized access point for manifestation: \W1\419824669#hazo\\W3\perthshire majesty\\E1\rdaco:1010\\E2\		

wEmi: Expression level
Vocabulary Encoding Scheme: Medium of performance

Work #1: Perthshire majesty - 419824669 ; Hazo, Samuel R. — Details tonen | Expressies inklappen

Expression #1: muzieknotatie, 430893787 _SEP_ Van Giel, Kevin, Perthshire majesty — Details inklappen | Manifestaties tonen

has content type: notated music

has medium of performance of musical content: Fanfareorkest ← *(@en: Fanfare orchestra)* — PKUM-term

has title of expression: Perthshire majesty

has authorized access point for expression: \W1\419824669#hazo\\W3\perthshire majesty\\E1\rdaco:1010\\E2\Fanfare\\E3\van giel\

has intended audience of expression: 3e divisie

has arranger person of music: 430893787

has arranger person of music: Van Giel, Kevin

PPN: 434907685

Expression #2: muzieknotatie, , Perthshire majesty — Details inklappen | Manifestaties tonen

has content type: notated music

has medium of performance of musical content: Harmonieorkest ← *(@en: Concert band)* — PKUM-term

has title of expression: Perthshire majesty

has authorized access point for expression: \W1\419824669#hazo\\W3\perthshire majesty\\E1\rdaco:1010\\E2\Harmonie\

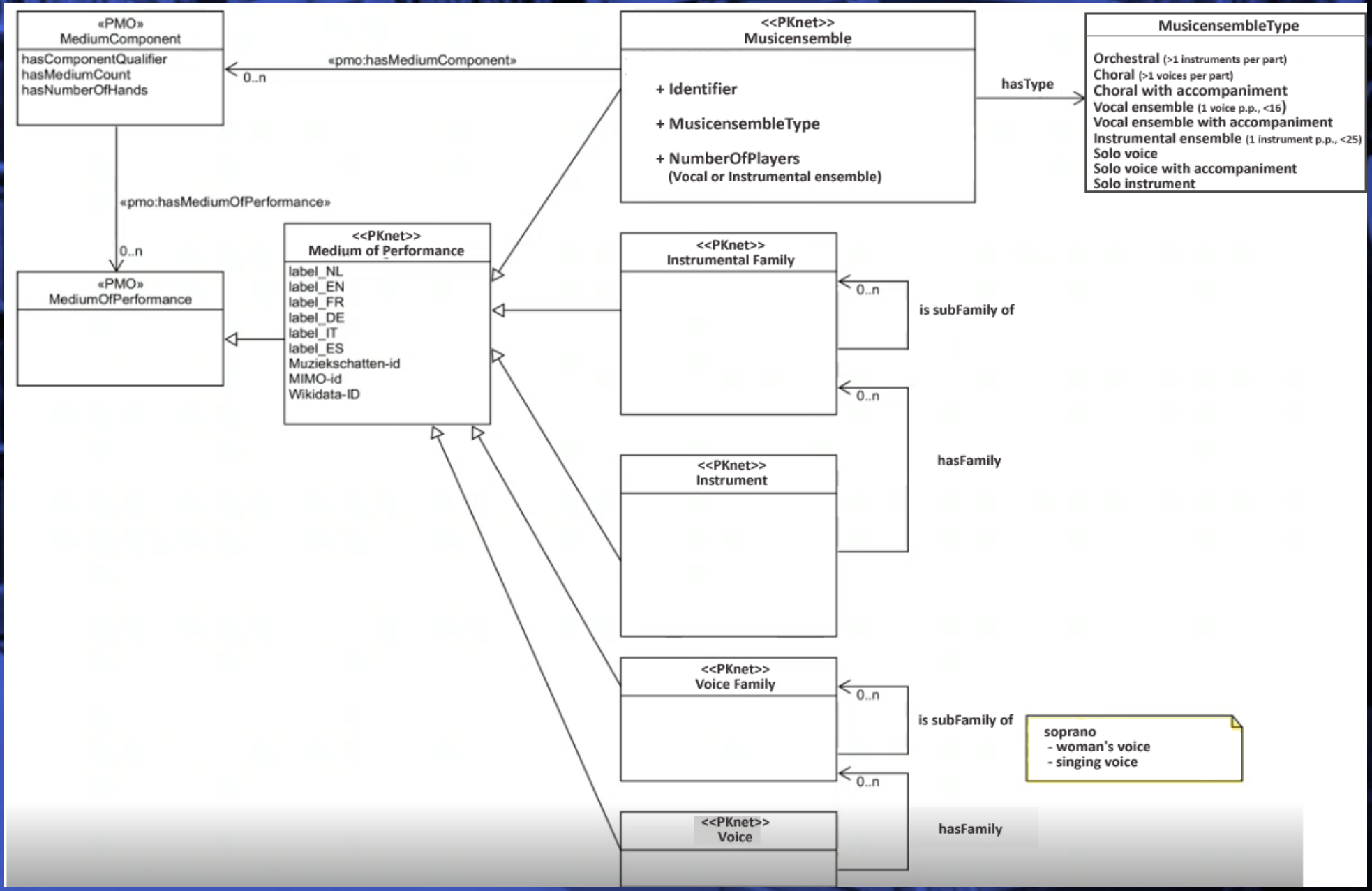
has intended audience of expression: 3e divisie

PPN: 419824650

PKnet Medium of Performance (PKUM)–Terms (excerpt, concept)

NL	EN	Muziekschatten-id	MIMO-id
Altsaxofoon met blaasorkest	Alto saxophone with wind band	https://data.muziekschatten.nl/som/d78482873	
Accordeon met blaasorkest	Accordion with wind band	https://data.muziekschatten.nl/som/d78482886	
Trompet met blaasorkest	Trumpet with wind band	https://data.muziekschatten.nl/som/d78482892	
Trombone met blaasorkest	Trombone with wind band	https://data.muziekschatten.nl/som/d78482893	
Tuba met blaasorkest	Tuba with wind band	https://data.muziekschatten.nl/som/d784828976	
Fanfareorkest	Fanfare orchestra	https://data.muziekschatten.nl/som/d78483	
Harmonieorkest	Concert band	https://data.muziekschatten.nl/som/d78483	
Piano met harmonieorkest	Piano with concert band	https://data.muziekschatten.nl/som/d78483262	
Piano met fanfareorkest	Piano with fanfare orchestra	https://data.muziekschatten.nl/som/d78483262	
Orgel met harmonieorkest	Organ with concert band	https://data.muziekschatten.nl/som/d78483265	
Orgel met fanfareorkest	Organ with fanfare orchestra	https://data.muziekschatten.nl/som/d78483265	
Pianola met harmonieorkest	Player piano with concert band	https://data.muziekschatten.nl/som/d784832666	
Pianola met fanfareorkest	Player piano with fanfare orchestra	https://data.muziekschatten.nl/som/d784832666	
Enkelrietblaasinstrument	Single-reed instrument (unspecified)	https://data.muziekschatten.nl/som/d7886	
Alboka	Alboka	https://data.muziekschatten.nl/som/d78862	http://www.mimo-db.eu/InstrumentsKeywords/4165
Altklarinet	Alto clarinet	https://data.muziekschatten.nl/som/d78862	http://www.mimo-db.eu/InstrumentsKeywords/3828
Arghul	Arghul	https://data.muziekschatten.nl/som/d78862	http://www.mimo-db.eu/InstrumentsKeywords/3829
Bassethoorn	Basset horn	https://data.muziekschatten.nl/som/d78862	http://www.mimo-db.eu/InstrumentsKeywords/3834
Bassetklarinet	Basset clarinet	https://data.muziekschatten.nl/som/d78862	http://www.mimo-db.eu/InstrumentsKeywords/3833
Bhujanga	Bhujanga	https://data.muziekschatten.nl/som/d78862	http://www.mimo-db.eu/InstrumentsKeywords/5155
Bilil	Bilil	https://data.muziekschatten.nl/som/d78862	http://www.mimo-db.eu/InstrumentsKeywords/3835

Concept scructure of the PKnet Medium of performance thesaurus



Example (search result)

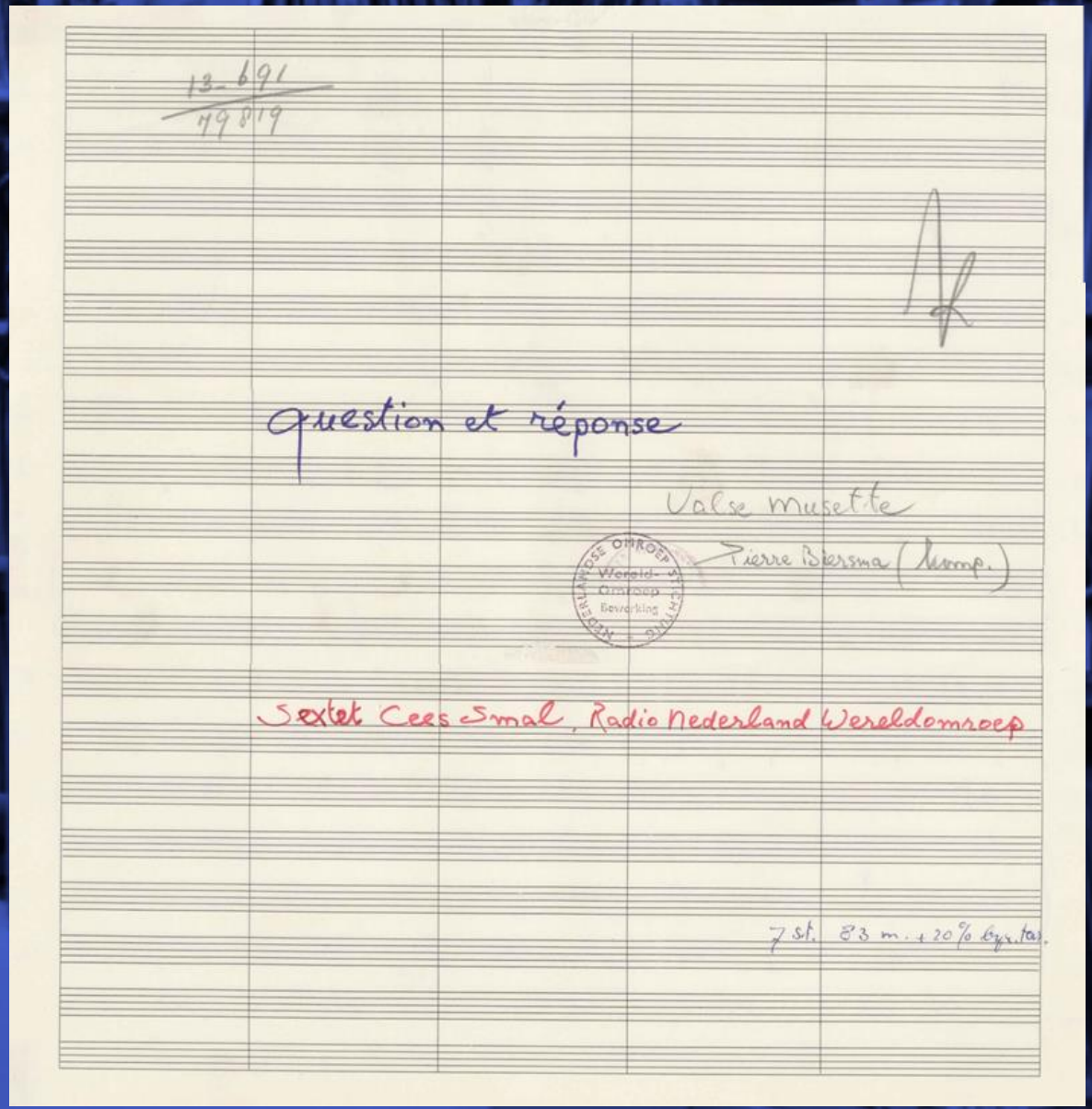
SPARQL Query /Podiumkunst-PoC/que Content Type (SELECT) JSON Content Type (GRAPH) Turtle

```
PREFIX pmo: <http://performedmusicontology.org/ontology/>
PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
PREFIX pkum: <http://podiumkunst.net/uitvoeringsmedium/>
PREFIX rdae: <http://rdaregistry.info/Elements/e/>

SELECT ?s ?label ?soort ?type ?aantal ?qualifier ?q WHERE {
  BIND(pkum:hoorn AS ?q) .
    {?s rdae:P20215 ?q .
    OPTIONAL {?q pkum:gezelschapsoort ?soort}
    OPTIONAL {?q pmo:MediumType ?type}
    }
    UNION
    {?s rdae:P20215 ?medium .
```

Table Response 3 results in 0.06 seconds Simple view Ellipse Filter query results Page size: 50

	s	label	soort	type	aantal	qualifier	q
1	<https://data.muzieks...	Bläserquintett Nr. I - Tilo Medek	<http://podiumkunst.net/uitvoering...	<http://performedmusicontol...	1		<http://podiumkunst.net/...
2	<https://data.muzieks...	Kwintet voor altfluit, basklarinet, ho...	<http://podiumkunst.net/uitvoering...	<http://performedmusicontol...	1		<http://podiumkunst.net/...
3	<https://data.muzieks...	Symfonie nr. 2 - Gustav Mahler	<http://podiumkunst.net/uitvoering...		9		<http://podiumkunst.net/...

Showing 1 to 3 of 3 entries < 1 >

Any questions?