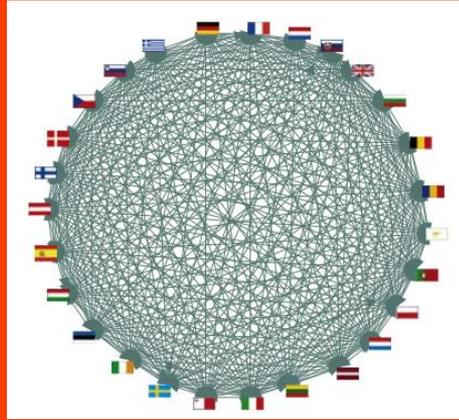


]init[



Der Weg zum “Interoperable Europe”

IDABC->ISA->ISA²->Interoperable Europe

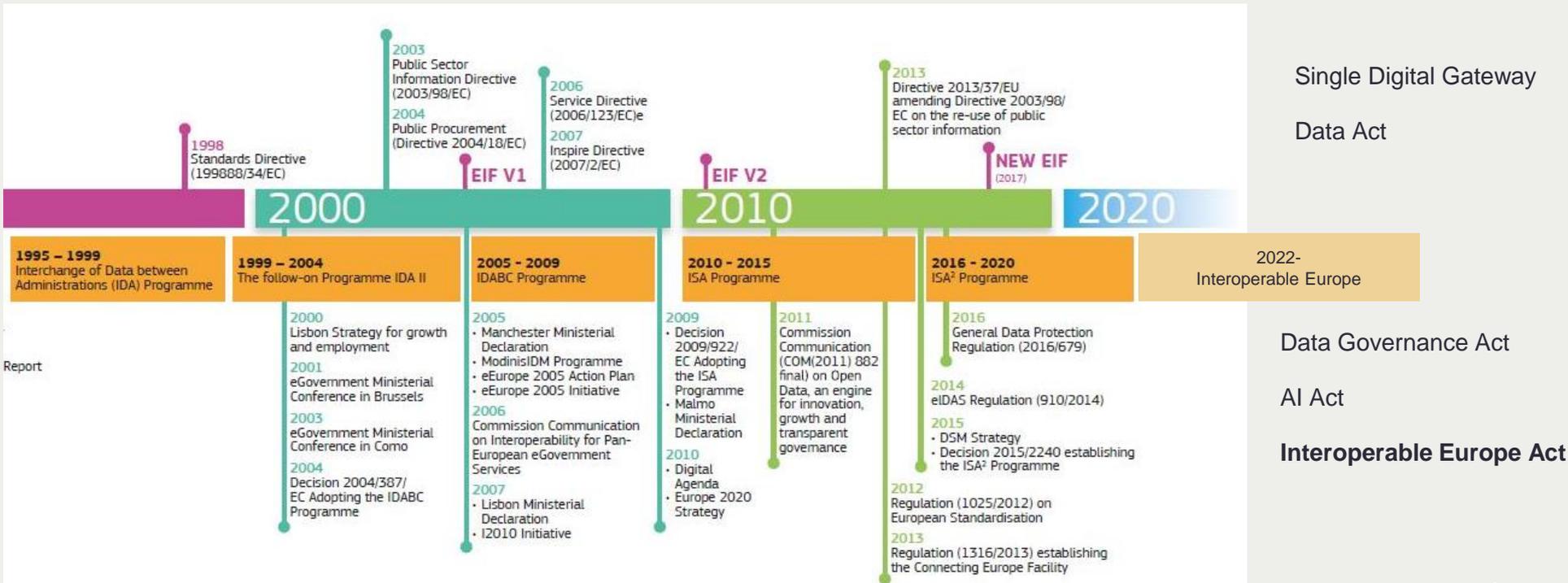
Historischer Abriss über den Weg zum “Interoperable Europe”

1. Geschichte 2009-2022 (IDABC, ISA, ISA²)

- a) Semantic Interoperability Centre Europe (SEMIC)
- b) Asset Description Metadata Schema (ADMS)
- c) Core Vocabularies (Core Voc)
- d) Data Catalog Application Profile (DCAT-AP)

2. Heute: Interoperable Europe Act und Interoperable Europe Programme

European Interoperability Timeline



Programme und Lösungsansätze

2005-2010	IDABC – SEMIC.EU
2010-2015	ISA – Core Vocabularies “Person, Location, Business”
2016-2020	ISA ² - Joinup, DCAT-AP, CAMSS, Core Vocabularies 2.0 “CPSV, CCCEV”
2022 – 2026	Interoperable Europe Programme

2009-2014

Semantic Interoperability Center Europe

SEMIC.EU – Semantic Interoperability Centre Europe

Reusing and Sharing of Semantic Interoperability Assets

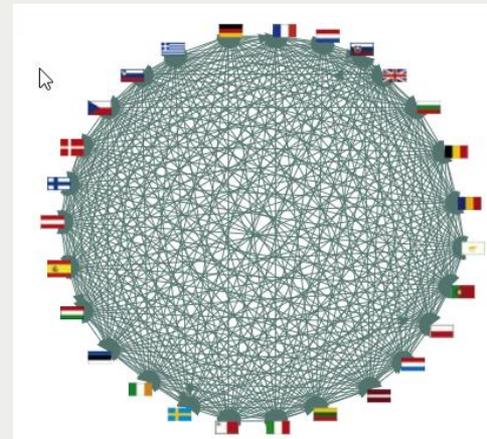


Sebastian Sklarß

]init[AG für digitale Kommunikation



Semantic Interoperability Centre Europe - ECOTerm Meeting - 2009-10-05 - Rome - Italy - Sebastian.Sklarss@init.de



<https://www.slideserve.com/maris/semantic-interoperability-centre-europe-powerpoint-ppt-presentation>

<https://slideplayer.com/slide/741472/>

2009-2014

Semantic Interoperability Center Europe



The exchange of address data . . .



Adresse

- Strasse
- **Hausnummer**
- **Hausnummerbuchstabe**
Zusatzziffer
- **Teilnummer der Hausnummer**
- **Stockwerkwohnungsnummer**
- Adressierungszusätze
- Postleitzahl
- Wohnort
- Zusatzangaben



Adresse

- Strasse
- **Hausnummer**
- **Stiege**
- **Türnummer**
- Postleitzahl
- Wohnort



Adresse

- County
- Street
- **House number**
- Village
- City

. . . what really is a House number?

2009-2014

Erste EU/MS-Projekte mit veröffentlichten Datenmodellen



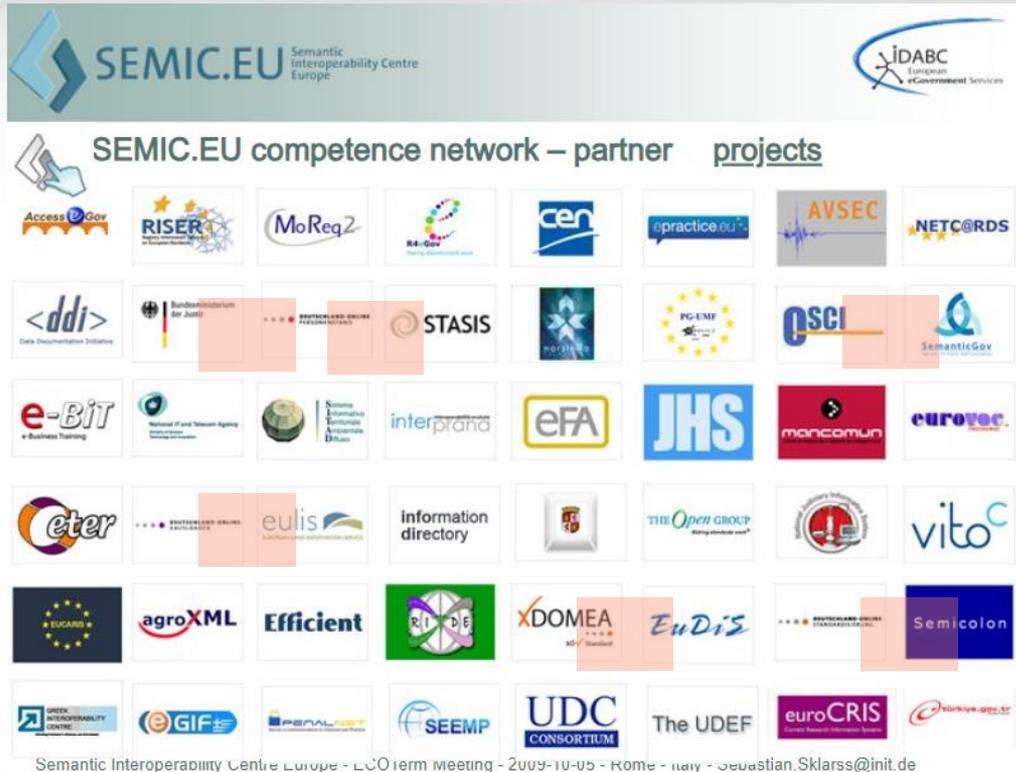
SEMIC.EU competence network – partner projects

Semantic Interoperability Centre Europe - LC0 Term Meeting - 2009-10-05 - Rome - Italy - Sebastian.Sklars@init.de

2009-2014

Deutsche Projekte mit veröffentlichten Datenmodellen



Deutsche Interop-Pioniere 2010:

- OSCI
- XJustiz
- XDomea
- Deutschland Online

2009-2014

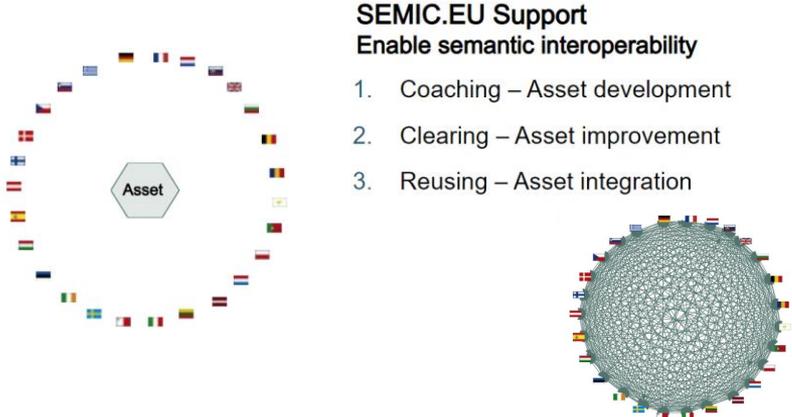
Die Geschichte über “das Asset in der Mitte”



The Idea – Using SEMIC.EU services

SEMIC.EU Support
Enable semantic interoperability

1. Coaching – Asset development
2. Clearing – Asset improvement
3. Reusing – Asset integration



Semantic Interoperability Centre Europe - ECOTerm Meeting - 2009-10-05 - Rome - Italy - Sebastian.Sklarss@init.de

3-Klang:

- Coaching (Service Centre and yearly conference)
- Clearing (Interoperability Assessment Reports)
- Reusing (Semantic Repository)

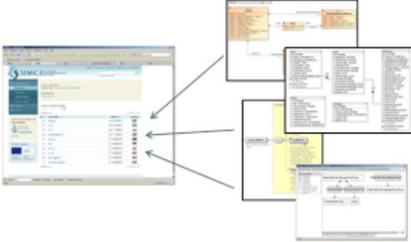
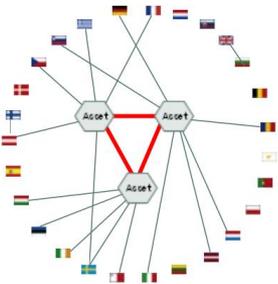
2009-2014

Die Geschichte über “das Asset in der Mitte”



The general Concept of Reuse

- Searching the repository of www.semic.eu
- Finding, evaluating, modifying



Semantic Interoperability Centre Europe - ECOTerm Meeting - 2009-10-05 - Rome - Italy - Sebastian.Sklars@init.de

Fusion der Portale zu Joinup

- SEMIC.EU (semantic repository)
- OSOR.EU (open source forge)
- ePractice (Ländersteckbriefe)

Aber es gab noch keine Beschreibungssprache für Metadaten eines Assets?

2012-2017

Asset Description Metadata Schema

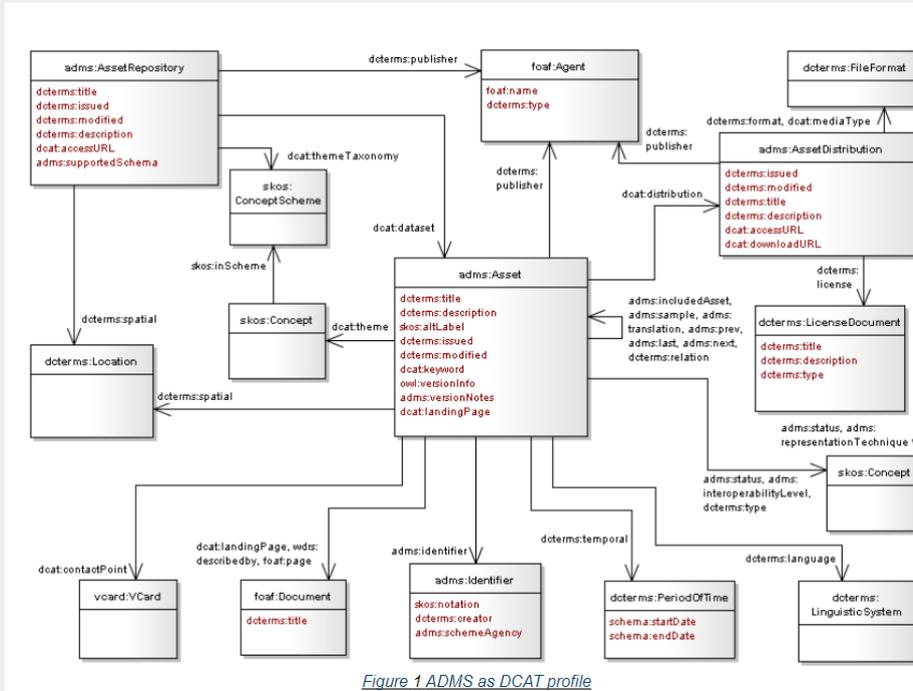


Figure 1 ADMS as DCAT profile

Computers in Industry
Volume 64, Issue 1, January 2013, Pages 10-18

ELSEVIER

Towards semantically interoperable metadata repositories: The Asset Description Metadata Schema

Gofran Shukair^a, Nikolaos Loutas^a, Vassilios Peristeras^b, Sebastian Sklarf^c

Show more

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<https://doi.org/10.1016/j.compind.2012.09.003> Get rights and content

<https://www.w3.org/TR/vocab-adms/>

-> <https://github.com/SEMICeu/ADMS> (2023)

2012-2017

Asset Description Metadata Schema

Dublin Core +

adms:interoperabilityLevel

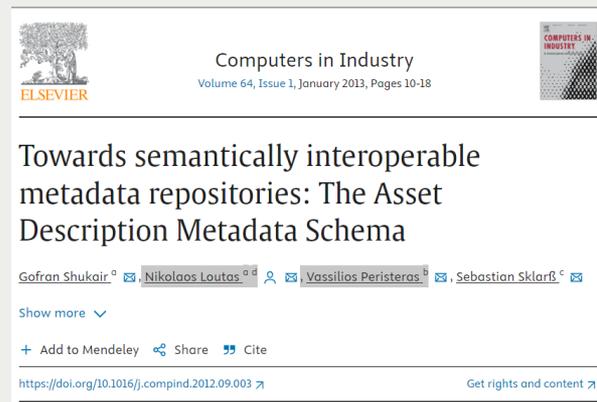
adms:versionNotes

adms:status

Adms:identifier ->schemaAgency ergänzt

adms:AssetRepository

adms:Asset



<https://www.w3.org/TR/vocab-adms/>

-> <https://github.com/SEMICEu/ADMS> (2023)

2012-2017 - Core Vocabularies

die Kernkomponenten der EU

Core Person: captures the fundamental characteristics of a person, e.g. name, gender, date of birth, location.

Core Location: captures the fundamental characteristics of a location, represented as an address, a geographic name or geometry.

Core Business: captures the fundamental characteristics of a legal entity (e.g. its identifier, activities) which is created through a formal registration process, typically in a national or regional register.

Core Criterion and Core Evidence: describes the principles and the means that a private entity must fulfil to become eligible or qualified to perform public services. A Criterion is a rule or a principle that is used to judge, evaluate or test something. An Evidence is a means to prove a Criterion.

Core Public Organisation: describes public organisations in the European Union.

•Außerdem: Core Public Services, Core Public Event,



ISA 2010-2015

Core Person

Person	
+	alternativeName: Text [0..*]
+	birthName: Text [0..*]
+	dateOfBirth: GenericDate [0..*]
+	dateOfDeath: GenericDate [0..*]
+	familyName: Text [0..*]
+	fullName: Text [0..*]
+	gender: Code [0..*]
+	givenName: Text [0..*]
+	matronymicName: Text [0..*]
+	patronymicName: Text [0..*]

Core Location

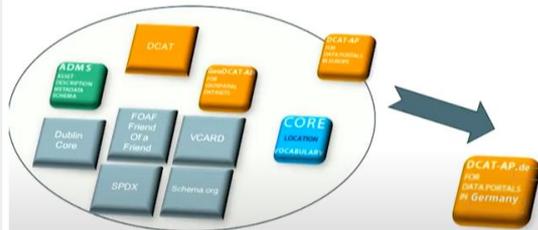
Core Location::Address	
+	addressArea: Text [0..*]
+	addressID: String [0..*]
+	adminUnitL1: Text [0..*]
+	adminUnitL2: Text [0..*]
+	fullAddress: Text [0..*]
+	locatorDesignator: String [0..*]
+	locatorName: Text [0..*]
+	poBox: String [0..*]
+	postCode: String [0..*]
+	postName: Text [0..*]
+	thoroughfare: Text [0..*]

https://ec.europa.eu/isa2/solutions/core-vocabularies_en/

2016-2020 ISA² - RDF Application Profiles

DCAT-AP und Deutschland leitet ab

Tailoring ISA² vocabularies
to German open data portal needs: DCAT-AP.de



Sebastian SKIARR

Consultant, init AG (German National Open Data Portal)

DCAT-AP.de

Herzlich willkommen auf DCAT-AP.de

DCAT-AP.de ist das gemeinsame deutsche Metadatenmodell zum Austausch von offenen Verwaltungsdaten. Auf dieser Plattform finden Sie die Spezifikationsdokumente in der jeweils aktuellen Version, Beispieldaten, sowie die DCAT-AP.de-eigenen Vokabulare.

SPEZIFIKATION 2.0

Informationsmodell des Standards DCAT-AP.de als Erweiterung von DCAT-AP.

Webversion
PDF-Version

KONVENTIONSHANDBUCH 2.0

Handbuche zur Implementierung des Standards DCAT-AP.de mit Hinweisen, wie die Spezifikation auszulegen ist.

Webversion
PDF-Version

VOKABULARE UND DOKUMENTE

Eine Übersicht über die verfügbaren Dokumente, Daten und Vokabulare.

Webversion

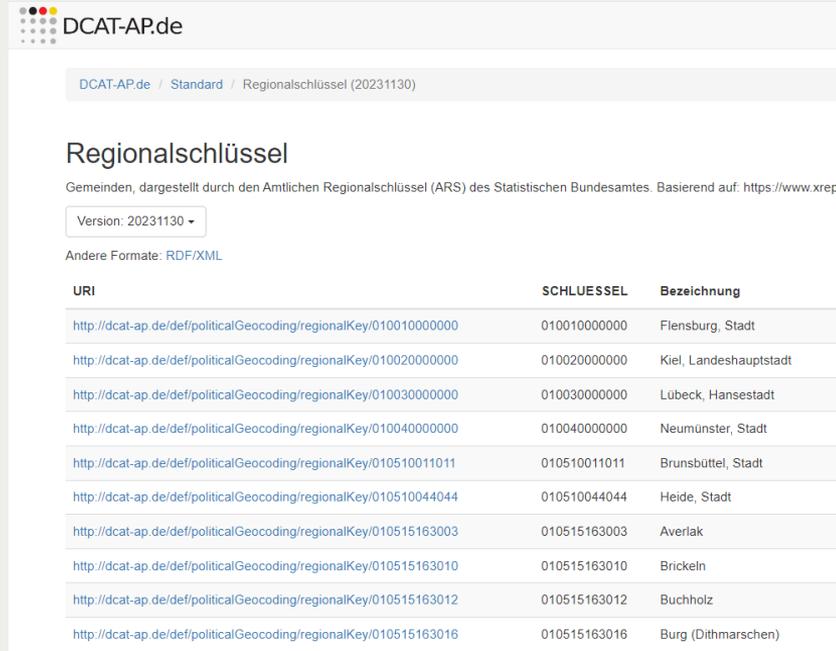
Der IT-Planungsrat hat im Juni 2018 DCAT-AP.de als formalen Austauschstandard für offene allgemeine Verwaltungsdaten festgelegt. Weiterführende Informationen zum Metadatenmodell DCAT-AP.de finden Sie unter <https://www.gmd.itd.de/metadatenrichtlinien>.

<https://www.dcat-ap.de/>

SEMIC Conference 2017 Malta:

https://www.youtube.com/watch?v=ZnVal5cV13Q&list=PLTqrUzsdFBKYI2IWfgZ3be1KX8_G8Nqs0&index=16

DCAT-AP und Deutschland leitet ab



DCAT-AP.de / Standard / Regionalschlüssel (20231130)

Regionalschlüssel

Gemeinden, dargestellt durch den Amtlichen Regionalschlüssel (ARS) des Statistischen Bundesamtes. Basierend auf: <https://www.xrepo.de>

Version: 20231130 ▾

Andere Formate: [RDF/XML](#)

URI	SCHLUESSEL	Bezeichnung
http://dcat-ap.de/def/politicalGeocoding/regionalKey/01001000000	010010000000	Flensburg, Stadt
http://dcat-ap.de/def/politicalGeocoding/regionalKey/01002000000	010020000000	Kiel, Landeshauptstadt
http://dcat-ap.de/def/politicalGeocoding/regionalKey/01003000000	010030000000	Lübeck, Hansestadt
http://dcat-ap.de/def/politicalGeocoding/regionalKey/01004000000	010040000000	Neumünster, Stadt
http://dcat-ap.de/def/politicalGeocoding/regionalKey/010510011011	010510011011	Brunsbüttel, Stadt
http://dcat-ap.de/def/politicalGeocoding/regionalKey/010510044044	010510044044	Heide, Stadt
http://dcat-ap.de/def/politicalGeocoding/regionalKey/010515163003	010515163003	Averlak
http://dcat-ap.de/def/politicalGeocoding/regionalKey/010515163010	010515163010	Brickeln
http://dcat-ap.de/def/politicalGeocoding/regionalKey/010515163012	010515163012	Buchholz
http://dcat-ap.de/def/politicalGeocoding/regionalKey/010515163016	010515163016	Burg (Dithmarschen)



DCAT-AP.de

Herzlich willkommen auf DCAT-AP.de

DCAT-AP.de ist das gemeinsame deutsche Metadatenmodell zum Austausch von offenen Verwaltungsdaten. Auf dieser Plattform finden Sie die Spezifikationsdokumente in der jeweils aktuellen Version, Beispieldateien, sowie die DCAT-AP.de-eigenen Vokabulare.

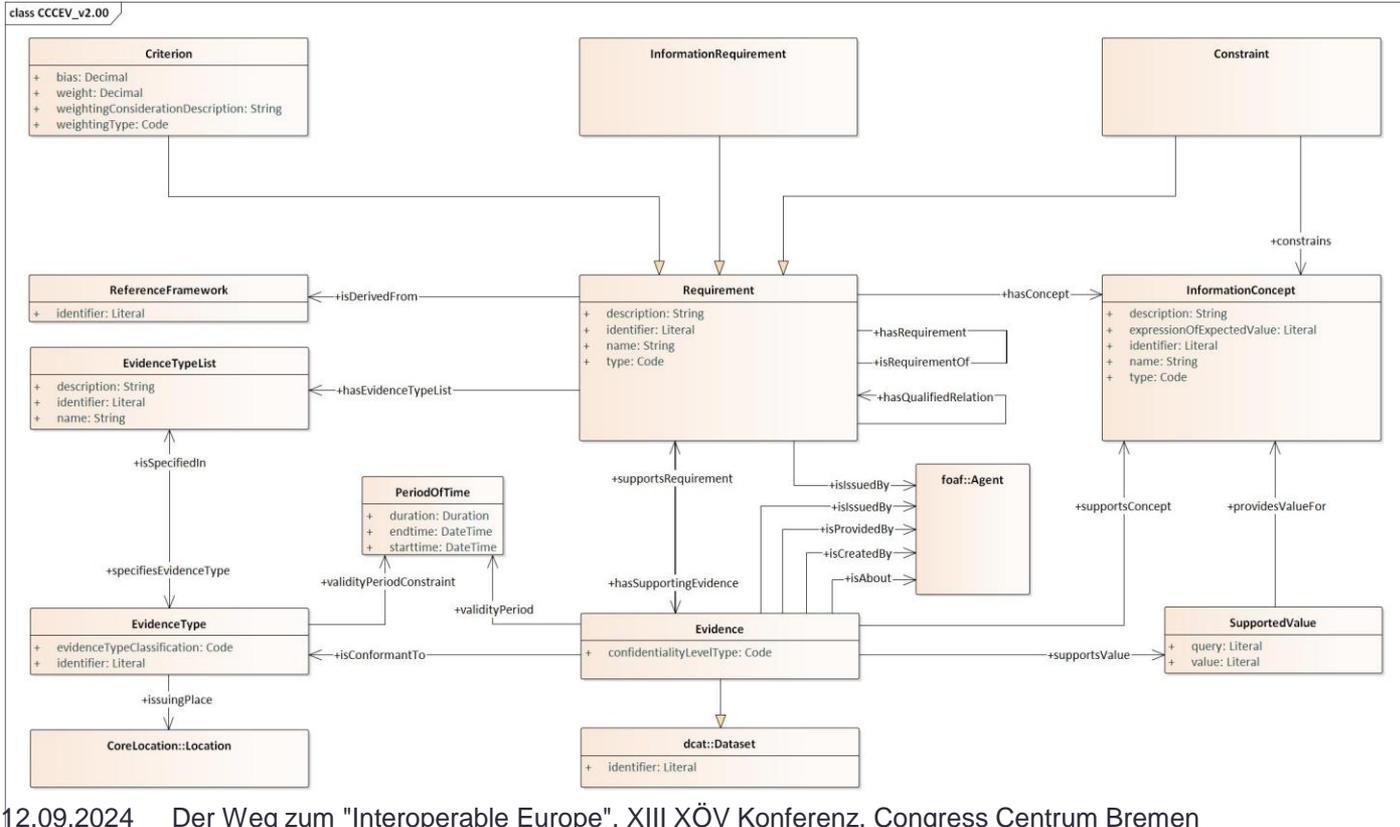
- SPEZIFIKATION 2.0**
Informationsmodell des Standards DCAT-AP.de als Erweiterung von DCAT-AP.
Webversion
PDF-Version
- KONVENTIONSHANDBUCH 2.0**
Handbuche zur Implementierung des Standards DCAT-AP.de mit Hinweisen, wie die Spezifikation auszulegen ist.
Webversion
PDF-Version
- VOKABULARE UND DOKUMENTE**
Eine Übersicht über die verfügbaren Dokumente, Daten und Vokabulare.
Webversion

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<https://www.dcat-ap.de/>

2016-2020 ISA² - CCCEV

CCCEV in Vorgriff auf das benötigte Fachdatenmodell für EU-OOTS



Wird später berücksichtigt von

a) der Spezifikation des Programmbereichs der Registermodernisierung PB EU-OOTS/OZG

["XEvidenceSurvey"](#)



Wissengraph der deutschen Verwaltung: hier Registermodernisierung [Projekt RegCheck](#) des Thüringer Finanzministeriums



Welche Erfahrungen bei der Erarbeitung in Arbeitsgruppen gesammelt wurden

Gut:

Vorbereitung und Effizienz der aufgezeichneten Meetings

Issues öffentlich in Github

Schlecht:

Zusammensetzung der Arbeitsgruppe

Anzahl und Länge der Meetings (zu kurz, zu wenige)

Deutsche Beteiligung – wenn dann aus Projektsicht – nicht übergreifend

Ott Velsberg	Ministry of Economic Affairs and Communications	Estonia
Øystein Åsnes	Norwegian Digitalisation Agency (Digdir)	Norway
Peter Bruhn Andersen	Digitaliseringsstyrelsen, Agency for Digitalisation, Ministry of Finance	Denmark
Peter Winstanley	The Scottish Government	Scotland
Petteri Kivimäki	Nordic Institute for Interoperability Solutions (NIIS)	Finland
Priit Kreitzberg	Ministry of Economic Affairs and Communications	Estonia
Radivoje Perović	Department of interoperability of registers and normative affairs	Montenegro
Rita Laranjeira	Administrative Modernization Agency (AMA)	Portugal
Sander Fieten	Chasquis	Netherlands
Sebastian Sklarss	AG für digitale Kommunikation, INIT	Germany
Syed Iftikhar Hussain Shah	SDG / DE4A, WP3 package "Semantic Assets"	Greece
Thashmee Karunaratne	SDG / DE4A, WP3 package leader "Semantic Assets"	Sweden
Theodoros Karounos	GROSS	Greece
Tomáš Šedivec	The department of the Chief architect of eGovernment at the Ministry of the Interior	Czech Republic
Valentína Michálková	Deputy Prime Minister's Office for investments and informatisation of the Slovak Republic, Digital Agenda Division	Slovak Republic

Und heute? -> Verordnung für ein interoperables Europa

interoperable europe **Act**

e n t e r s i n t o f o r c e

Und heute? -> Der Interoperable Europe Act

<https://joinup.ec.europa.eu/interoperable-europe/news/interoperable-europe-act-enters-force>

Four main pillars

The Act's approach will be the implementation of a set of measures, which can be summarised by the following four pillars:

- The setup of a multi-level governance framework to define the interoperability agenda , including the needs for common interoperability solutions.
This framework will be steered by the Interoperable Europe Board and supported by the Interoperable Europe Community.
- The introduction of mandatory interoperability assessments for the interoperable-by-design public services, starting from January 2025. This obligation will help public sector bodies to explore and, where appropriate, address cross-border interoperability aspects at the design phase.
The Board and the Commission will provide the necessary guidelines and tools. For these assessments guidelines, a pilot will soon take place, to which 50 public administrations in the EU (from the local to the European level) have signed up.
- Mainstreaming of the sharing and reusing of interoperability solutions among public administration, powered by the one-stop-shop for solutions '[Interoperable Europe Portal](#)'.
The set-up of this Portal will start from the Joinup portal.
- A strengthened innovation and policy support, including training, regulatory sandboxes for policy experimentation, [GovTech](#) and policy implementation support projects, to develop, test and scale up solutions.

Und heute? -> Der Interoperable Europe Act



becomes

interoperable
europe **Portal**

Start typing to search...



Need more search options? Use our **advanced search**

Discover more ...

Four main pillars

Multi-level governance framework

Policy support

Portal for sharing and reuse

Assessment Reports

SEMIC Conference

]init[

Danke für Ihre Aufmerksamkeit

Sebastian.Sklarss@init.de

<https://www.linkedin.com/in/sebastiansklarss/>

Was ist eigentlich DIGIT?

Generaldirektorat der Europäischen Kommission für Informatik, nun: “Digital Services”

- Bereitstellung verlässlicher, kosteneffizienter und sicherer IT-Infrastruktur und -Dienste
- Bereitstellung von Informationssystemen und Rationalisierung von Betriebsabläufen
- Schaffung neuer Möglichkeiten für die Arbeit und Zusammenarbeit des Personals
- Ausrichtung von IT-Investitionen an den operativen Prioritäten unter Abwägung von Risiken und Nutzen für die Kommission
- **Förderung der Interoperabilität**, damit **europäische Behörden** über nationale Grenzen hinweg reibungslos zusammenarbeiten können

Leitung und Organisation



COMMISSIONER
Johannes Hahn



DIRECTOR-GENERAL
Veronica Gaffey

Quelle: https://commission.europa.eu/about-european-commission/departments-and-executive-agencies/digital-services_de

Lessons learnt (Auszug)

Nachnutzungshindernisse laut spanischer Expertin

OBSTACLES IN DISCOVERY OF REUSABLE SEMANTIC ASSETS



- Huge amount of assets
- Asset scattering
- Overlapping of concepts
- Context/country-dependent meanings
- Labels and descriptions in different languages
- Lack of accuracy on meaning description
- Lack of metadata at every level of an asset
- Findability of proper semantic assets
- Semantics as barrier for domain experts
- Semantics as barrier for IT developers

Quelle: Beitrag “The Social Factor in European Semantic Interoperability“ auf der SEMIC 2023:

Ana Rosa Guzmán Carbonell - [Ministerio de Asuntos Económicos y Transformación Digital](#)

Lessons learnt (Auszug)

Nachnutzungshindernisse laut spanischer Expertin

EXPERTS ON THE KNOWLEDGE DOMAIN OF PUBLIC SERVICES



- Diversity of:
 - Languages & Concepts
 - Cultures & Legal frameworks
- English as common language
 - Not native language (mostly)
 - Nuance issues
 - Accuracy issues
 - Bigger misunderstandings
- Psych-sociological issues
 - Human biases
 - Elicitation issues
 - Onboarding and commitment issues
- Little to no EU harmonisation of the knowledge domain
- Experts on the national context
 - Laypeople in other contexts
 - Laypeople in semantics

New
knowledge

Existing
knowledge

Lessons learnt (Auszug)

Herausforderungen bei der SDG-Umsetzung

In the Accelerator workshop you told us about the many **challenges** you face **implementing the OOTS**.

1. Challenge to convince authorities to get started
2. A lack of political weight to tell evidence providers that they need to comply with the SDGR
3. Data is already available but challenging to transforming the data for the purposes of the OOTS
4. Scattered communication materials that they can distribute among their stakeholders.
5. Focus on procedures and evidences that are high use and to prioritize in terms of their necessity
6. Challenge to modernize data and define minimum datasets.

2013-2016

Das W3C machte mit:



<https://www.w3.org/blog/2012/implementing-adms-and-the-core/>

<https://semiceu.github.io/Core-Person-Vocabulary/releases/w3c/>

A screenshot of a W3C blog post. The page title is "Implementing ADMS and the Core Vocabularies". The post is dated "25 June 2012". The content begins with "Since last September, W3C has been working with PricewaterhouseCoopers on a contract from the European Commission's ISA Programme to create a number of vocabularies for use in e-Government. I described there in a [post on this blog](#) back in March when initial work on the vocabularies was nearing completion. Theory is all well and good, but it's implementations that count which is why to get any standard to W3C Recommendation status requires at least two interoperable, independent implementations. So what's the implementation status of ADMS, the Person, Business and Location Core Vocabularies?"

ISA Programme Person Core Vocabulary

This document is also available as an [RDF schema](#)

Abstract

The Person Core Vocabulary provides a minimum set of classes and properties for describing a natural person, i.e. the individual as opposed to any role they may play in society or the relationships they have to other people, organisations and property, all of which contribute significantly to the broader concept of identity.

Status

The Person Core Vocabulary was developed under the [ISA Programme](#) of the European Union and all documentation is available on the European Commission's [Joinup Platform](#).

This vocabulary was not developed by a W3C group and its publication does not imply endorsement by the W3C Membership. Terms MAY be deprecated or their definitions clarified but they will not be deleted (see the [W3C Persistence Policy](#)). The vocabulary MAY be further developed by a future group.

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