

The Public Sector DNA on the web: semantically marking up government portals

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W3C - Smart Descriptions & Smarter Vocabularies (SDSVoc)

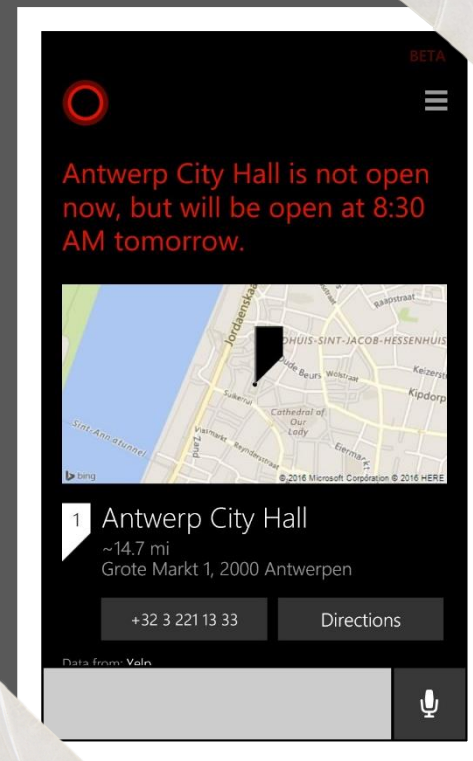
Amsterdam, 30 November - 1 December, CWI, Amsterdam Science Park



WHY

Public services should be centered around citizens and businesses.

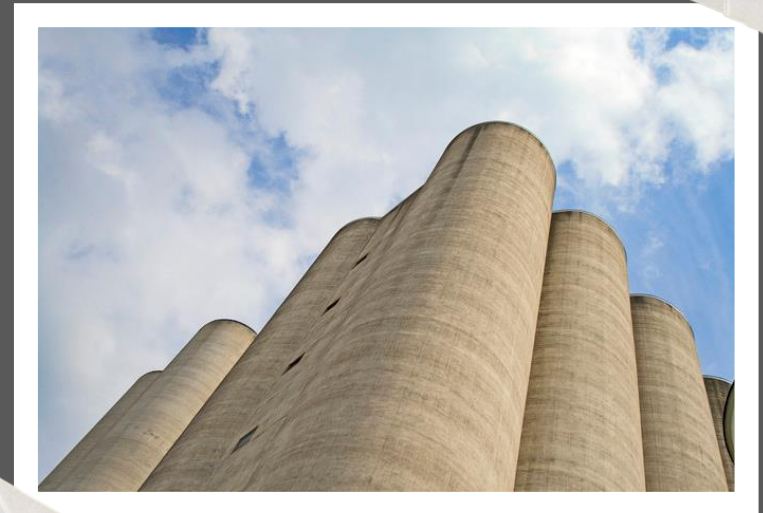
Asking your mobile “funding for roof insulation”, should provide qualitative personalized information



HOW

**we need an appropriate
distribution model for government
base registries**

*“trusted authentic sources of
information under the control
of an appointed public
administration or organization
appointed by the
government¹” containing
information about public
services*

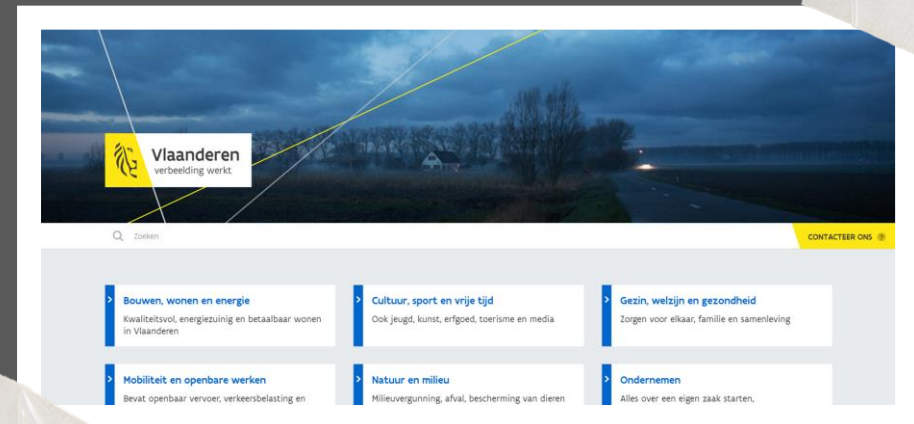


¹ http://ec.europa.eu/isa/actions/documents/isa_1.2_d1.2_base_registry_definition.pdf
<http://nl.freeimages.com/photo/silo-1-1209716>

WHAT

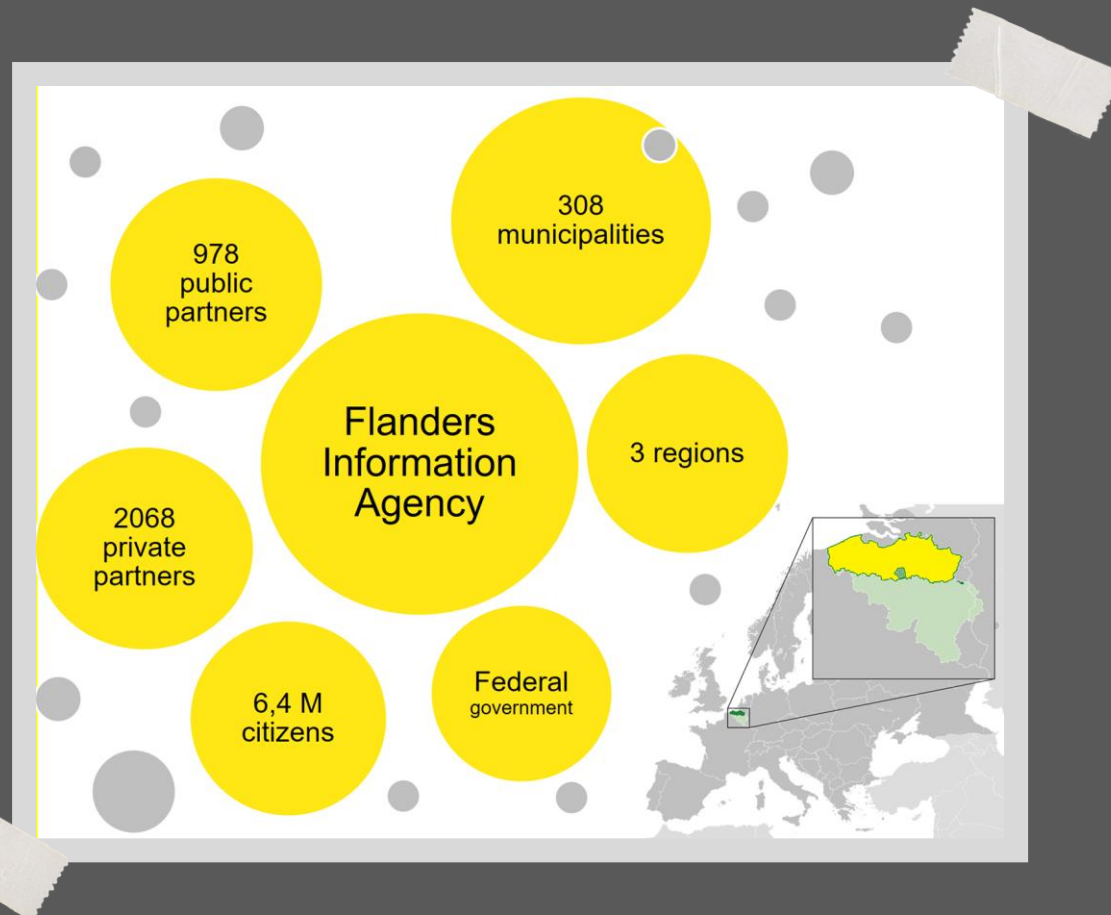
the Flemish Government is working on a strategy to add markup to government portals

Flemish Government is working on a strategy to add markup to government portals to promote information about their public services on third-party platforms, using both schema.org and the ISA CORE vocabularies.



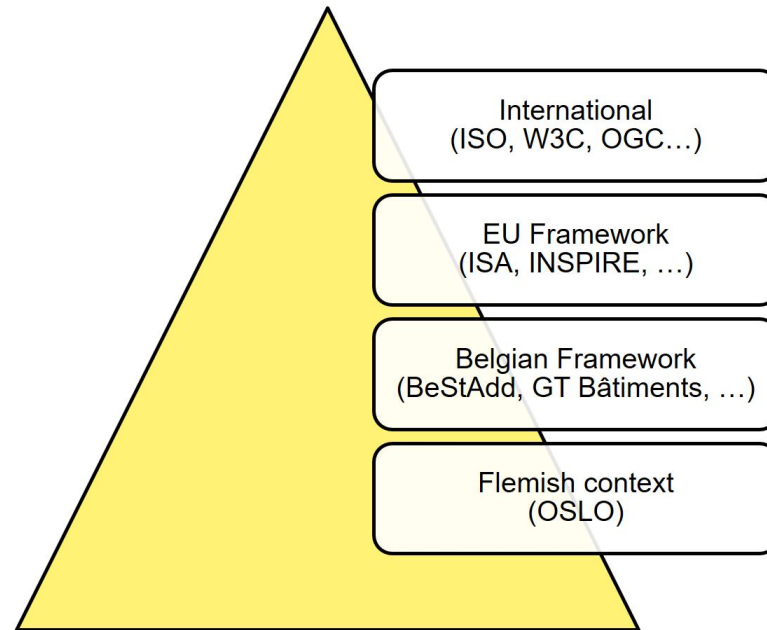
FLANDERS

Informatie Vlaanderen & Flanders Radically Digital



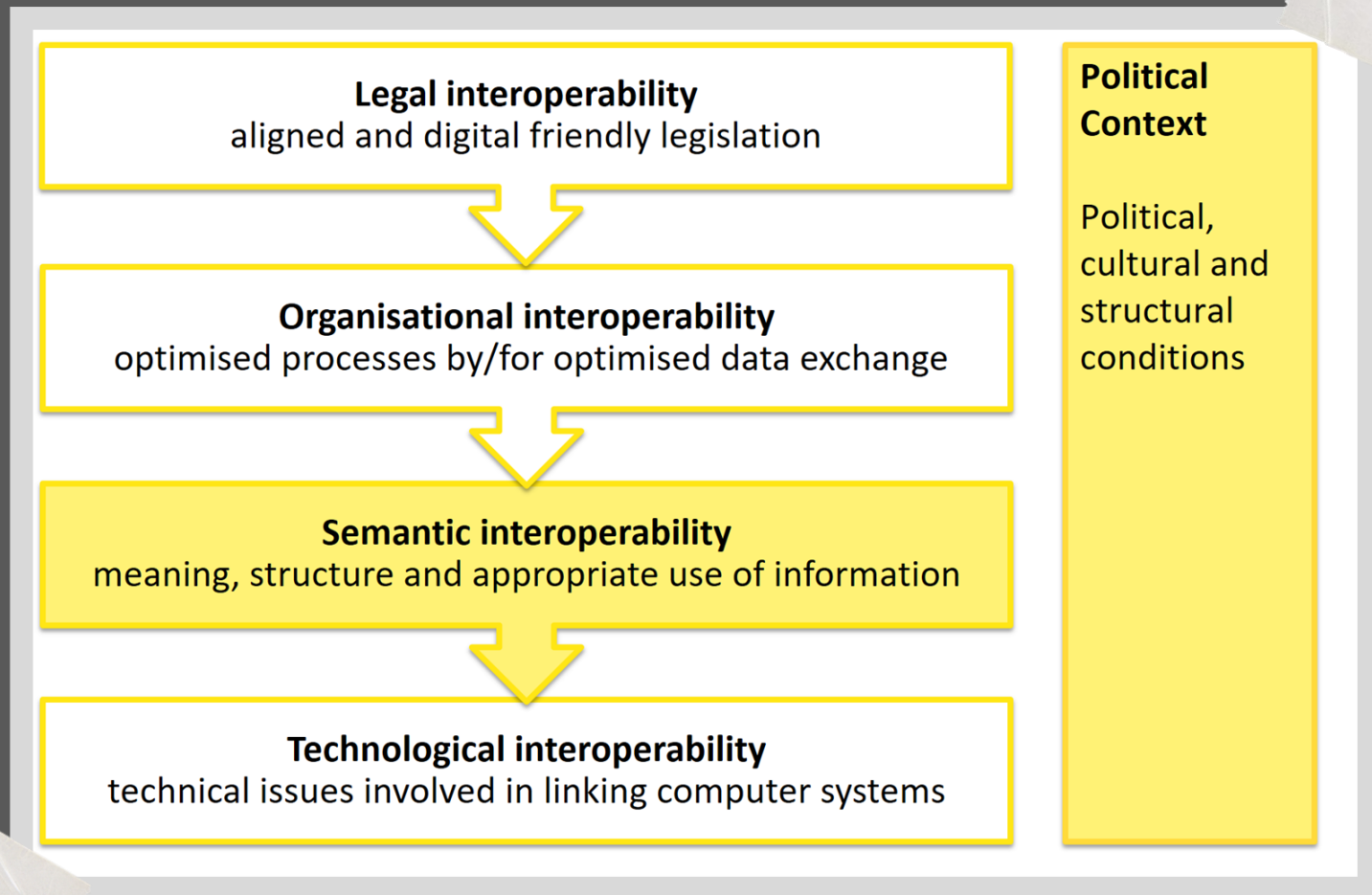
FLANDERS

Open Standards for Linked Organizations



FLANDERS

Interoperability Levels



FLANDERS

For the public sector, Base Registries are a fundamental footprint like DNA for living organisms.

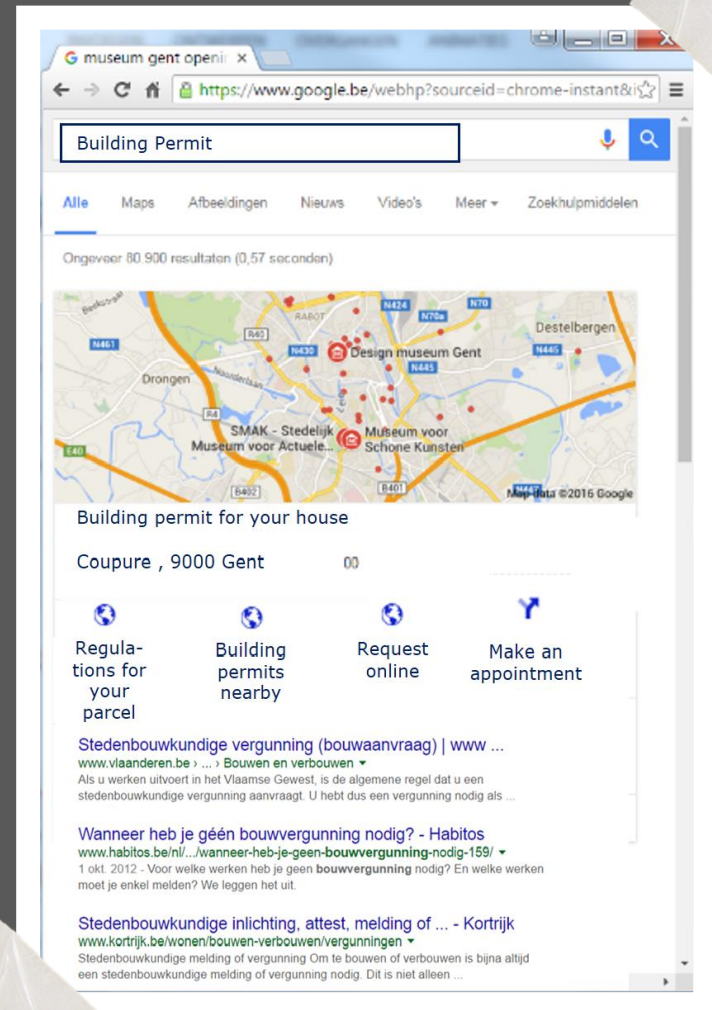
“trusted authentic sources of information under the control of an appointed public administration or organization appointed by the government¹” containing information about public services



¹ http://ec.europa.eu/isa/actions/documents/isa_1.2_d1.2_base_registry_definition.pdf
<https://pixabay.com/nl/dna-biologie-geneeskunde-gen-163466/>

IMAGINE...

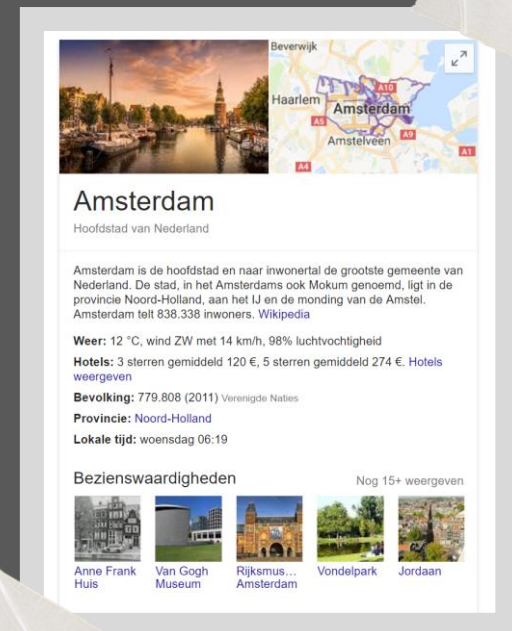
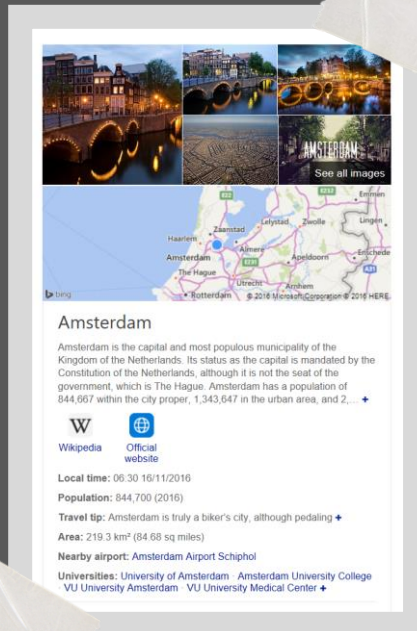
Qualitative,
personalized
information
about public
services at your
fingertips



Mock-Up based on Google SERP

>> SHIFT

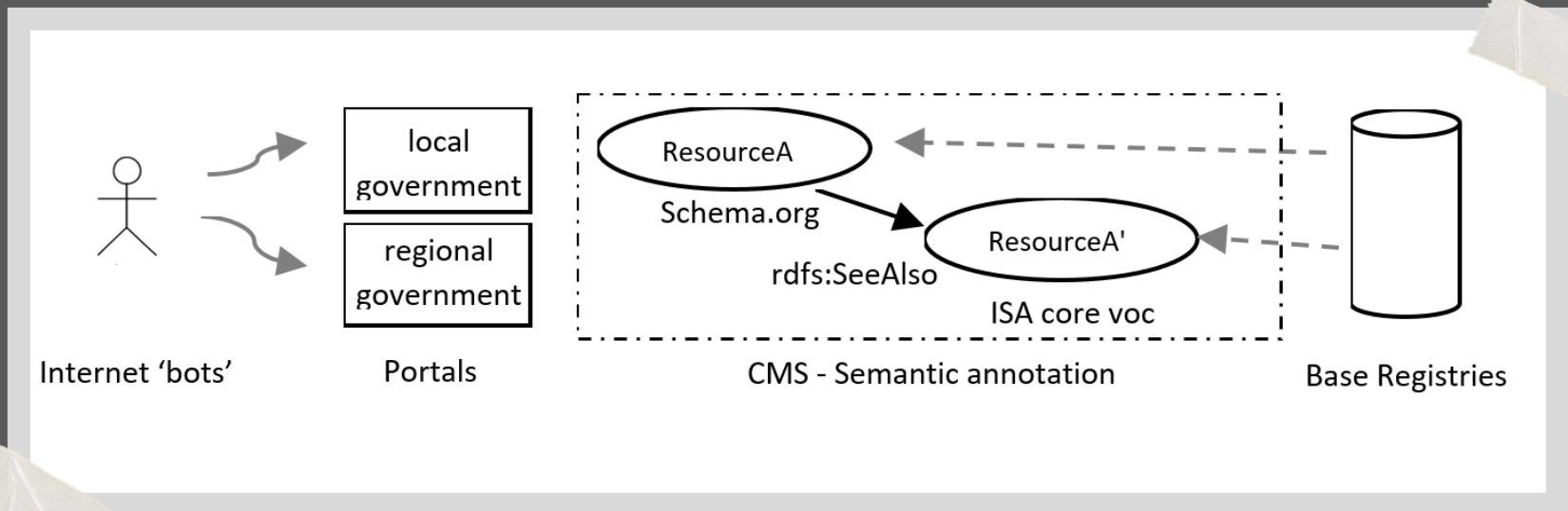
Annotated Data: from the search engine result pages to an important data source



PILOT

Annotating must be easy...

1. *Users can annotate addresses, provisioned by the address base registry, and Opening Hours through a CMS (Proof-Of-concept)*
2. *The data is annotated both in Schema.org and EU ISA core vocabularies. The vocabularies are linked by a 'rdfs:SeeAlso' statement, used to indicate a resource that might provide additional information about the subject resource¹ ('loosely coupled' <> skos²)*



¹ https://www.w3.org/TR/2004/REC-rdf-schema-20040210/#ch_seealso

² <https://www.w3.org/TR/skos-reference/>

PILOT

Annotating must be easy...

Proof Of Concept: back-end (left) and front-end (right).

The back-end interface shows a header with the 'Vlaanderen' logo, a search bar, and a 'CONTACTEER ONS' button. Below the header is a navigation bar with 'Vlaamse overheid' and 'Contact'. The main content area features a large blue-tinted image of a modern building with the text 'Vlaamse overheid' overlaid. Below this is a 'Contact' section with a paragraph of text: 'Hebt u een vraag voor de overheid? Bel, [mail](#) of [chat](#) gratis met 1700. 1700 is elke werkdag telefonisch bereikbaar van 9 tot 19 uur. Bellen vanuit het buitenland kan ook, op het betalende nummer +32 2 553 1700.'

Waar vindt u ons?

The front-end interface displays a 'Locaties / kantoren' section. It features a list of locations, each with a title, a description, and a 'Bewaren' button. The locations listed are: 'Anna Bijnsgebouw (VAC Antwerpen)', 'Boudewijngebouw', 'Wirtschaftsvertretung Flandern C/- Botschaft von Be', and 'Flanders Investment and Trade'. Each location entry includes a 'mail + openingsuren' link, a phone number, and a URL. The 'Boudewijngebouw' entry also includes an 'ADRES' section with dropdown menus for 'Antwerpen' and 'Lange Kievitstraat', and input fields for '2018' and '111-113'. A 'Locatie toevoegen' button is at the bottom.

PILOT

Annotating must be useful...

1. We're annotating public services, opening hours and addresses

2. Both on the site of a local government (Ghent) and the regional government (Flemish Government)

```
1490 </noscript>
1491
1492 <!-- JSON-LD start -->
1493 <script type="application/ld+json">
1494 {
1495   "@context": [
1496     {
1497       "dct": "http://purl.org/dc/terms/",
1498       "cspv": "http://purl.org/vocab/cspv#",
1499       "cpov": "http://unknown/cpov#",
1500       "schema": "http://schema.org/",
1501       "org": "http://www.w3.org/ns/org#",
1502       "foaf": "http://xmlns.com/foaf/0.1/",
1503       "rdfs": "http://www.w3.org/2000/01/rdf-schema#",
1504       "vcard": "https://www.w3.org/2006/vcard/ns#",
1505       "owl": "https://www.w3.org/2002/07/owl#"
1506     },
1507     "http://schema.org"
1508   ],
1509   "@graph": [
1510     {
1511       "@id": "_:1700service-core",
1512       "@type": "cspv:PublicService",
1513       "dct:title": "Gratis informatienummer van de Vlaamse overheid",
1514       "dct:description": "1700 is het gratis informatienummer van de Vlaamse overheid, voorheen bekend als de Vlaamse  
Infolijn. 1700 is voor burgers, bedrijven en organisaties het eerste aanspreekpunt voor vragen aan de Vlaamse overheid. Ze  
kunnen er terecht voor klantgerichte overheidsinformatie en informatie over de status van hun lopende dossiers.",
1515       "schema:contactPoint": {
1516         "@type": "schema:ContactPoint",
1517         "vcard:hasTelephone": { "@id": "tel:1700" }
1518       },
1519       "dct:temporal": {
1520         "schema:openingHours": "Mo,Tu,We,Th,Fr 9:00-19:00"
1521       }
1522     },
1523     {
1524       "@id": "_:vlaamseoverheid-core",
1525       "@type": ["cpov:PublicOrganization", "org:FormalOrganization"],
1526       "rdfs:label": "Vlaamse Overheid",
1527       "foaf:homepage": { "@id": "https://overheid.vlaanderen.be/" },
1528       "cspv:provides": { "@id": "_:1700service-core" },
1529       "org:hasSite": [
1530         {
1531           "@id": "_:vacAntwerpen-core",
1532           "@type": ["org:Site", "dct:Location"],
1533           "rdfs:label": "Anna Bijnsgebouw (VAC Antwerpen)",
1534           "foaf:page": "https://www.vlaanderen.be/nl/vlaamse-overheid/anna-bijnsgebouw-vac-antwerpen",
1535           "vcard:hasTelephone": { "@id": "tel:+32 32 24 60 81" },
1536           "locn:address": {
1537             "@id": "_:vacAntwerpen-addr-core",
1538             "@type": "locn:Address",
1539             "locn:thoroughfare": "Lange Kievitstraat",
1540             "locn:locatorDesignator": "111-113",
1541             "locn:postName": "Antwerpen",
1542             "locn:adminUnit1": "BE"
1543           }
1544         },
1545         {
1546           "@id": "_:boudewijngebouw-core",
1547           "@type": ["org:Site", "dct:Location"],
1548           "rdfs:label": "Boudewijngebouw",
1549           "foaf:page": "https://www.vlaanderen.be/nl/vlaamse-overheid/boudewijngebouw",
1550           "vcard:hasTelephone": { "@id": "tel:+32 25 53 20 88" },
1551           "locn:address": {
1552             "@id": "_:boudewijngebouw-addr-core",
1553             "@type": "locn:Address",
1554             "locn:thoroughfare": "Boulevard de la Woluwe",
1555             "locn:locatorDesignator": "111-113",
1556             "locn:postName": "Brussel",
1557             "locn:adminUnit1": "BE"
1558           }
1559         }
1560       ]
1561     }
1562   ]
1563 }
```

PILOT

Annotating must be useful...

Overview of the vocabularies

Schema.org

GovernmentService
GovernmentOrganization
Place
PostalAddress

ISA² Core Vocabularies

cpsv:PublicService
cpov:PublicOrganization, org:FormalOrganization
org:Site, dct:Location
locn:Address

PILOT

Test scenario

1. Create an **annotated webpage** containing:
Address, Telephone and Opening hours
<https://informatievlaanderen.github.io/OSLO-Annotated-Data-POC/example/>
2. Annotate the webpage **using schema.org and ISA Core Vocabularies**, linked using the 'rdfs:seeAlso' statement (JSON-LD)
3. Publish the testpage containing valid information on the website of a **local government (Ghent) & regional government (Flemish Government)**
4. **Test the uptake** by major search engines
5. Test the uptake in Google & Bing Knowledge Graph
6. **Which influences the uptake** of the information, published on both Ghent.be & Vlaanderen.be



FEEDBACK

1. Is annotated data the new data portal?
2. Will annotations support the uptake of authoritative government information?
3. Is it 'wise' to focus on both Schema.org & CORE vocabularies?
4. How can we add a built-in feedback loop?
5. Can Schema.org & ISA² manage a mapping together?



INFO

1. Position Paper (W3C workshop)

http://www.w3.org/2016/11/sdsvoc/SDSVoc16_paper_1

2. Overview of the vocabularies

<http://informatievlaanderen.github.io/OSLO/vocabularia/>

3. Annotated page

<https://informatievlaanderen.github.io/OSLO-Annotated-Data-POC/example/>

Annotated with CORE vocabularies & Schema.org “noindex, nofollow”-version.

HTML version at Gent.be & Vlaanderen.be [expected December 2016]

4. About OSLO²

<https://joinup.ec.europa.eu/community/oslo2/home>



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