



Flanders
State of
the Art

OSLO Validator

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Sharing & Reuse Conference

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Bucharest, Romania

Sharing & Reuse Conference

11 June 2019 - Bucharest, Romania

OPEN.SHARE.LINK.

**INFORMATIE
VLAANDEREN**

www.vlaanderen.be/informatievlaanderen

Flanders Information Agency

A DIGITAL GOVERNMENT FOR FLANDERS

Organising / creating data



Authoritative data sources



Flemish Positioning Service

Data sharing



Data Sharing Platform Flanders

Research & Development



Blockchain

Smart Cities



Artificial Intelligence

Earth Observation Data Science



Front



Flanders web platform



Contact centre



Vlaanderen.be



My Citizen Profile



Information portal for professionals

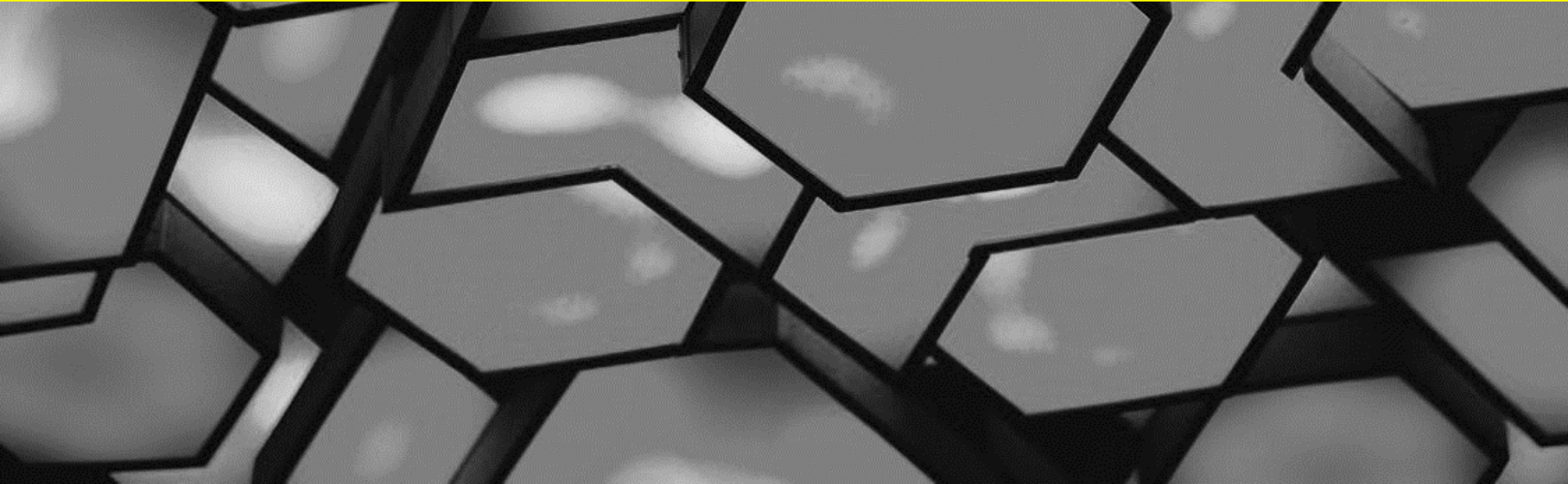
**INFORMATIE
VLAANDEREN**

REUSE our OSLO Validator



OSLO?

- > Open Standards for Linked Organisations
 - Semantic data standards
 - Vocabularies & Application Profiles
 - For a wide range of different domains
 - Standardised publication process



Validation?

- > “Good Old” Data Validation
 - For data exchange compliance 2 an Application Profile
 - “Good Old” = like Schematron for XML
 - Validation of multiplicities, data types, constraints etc
 - Different from semantic validation



SHACL validator

> Validate your RDF against a SHACL file



SHACL validator

> Example of a SHACL file

```
504 ▼ dienst:PublicServiceShape
505     a sh:NodeShape ;
506     sh:targetClass <http://purl.org/vocab/cpsv#PublicService> ;
507 ▼     sh:property [
508         sh:name "naam" ;
509         sh:description "Officiële naam van de publieke dienstverlening." ;
510         sh:datatype <http://www.w3.org/1999/02/22-rdf-syntax-ns#langString> ;
511         sh:minCount 1 ;
512         sh:maxCount 1 ;
```

SHACL became a W3C recommendation in 2017

```
515 ▼     sh:property [
516         sh:name "heeftVerantwoordelijke" ;
517         sh:description "Publieke organisatie die verantwoordelijk is voor
           het aanbieden en beheren van de publieke dienstverlening." ;
518         sh:class <http://data.europa.eu/m8g/PublicOrganisation> ;
519         sh:minCount 1 ;
520         sh:maxCount 1 ;
521         sh:path <http://data.europa.eu/m8g/hasCompetentAuthority> ;
522     ] ;
```

SHACL validator: demo

> Validate a file



Valideer via opladen van bestand | Valideer via URL

Valideer via opladen van bestand

OSLO² applicatie profiel

1

Selecteer hieronder het OSLO² applicatie profiel waartegen u uw data wil valideren.

Adresregister

Data

2

Selecteer hieronder het bestand dat u wil valideren.

[Bijlage toevoegen](#)

3

Valideer

Klik hier om te valideren

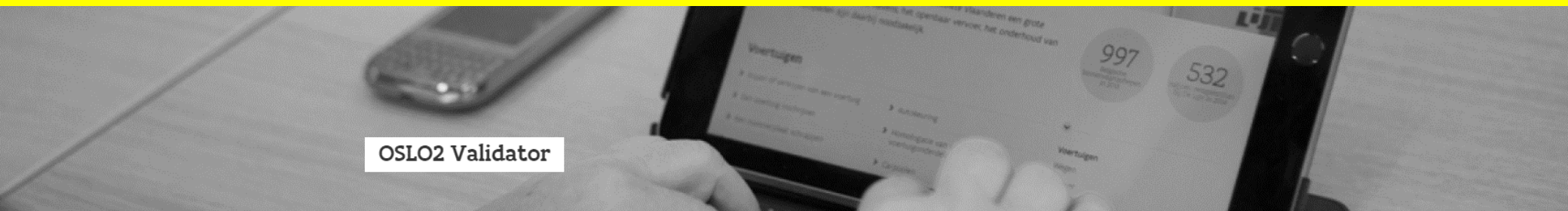
1 > choose a profile

2 > choose a file

3 > validate

SHACL validator: demo

> OR Validate a service



Valideer via opladen van bestand | Valideer via URL

Valideer via URL

OSLO² applicatie profiel

1

Selecteer hieronder het OSLO² applicatie profiel waartegen u uw data wil valideren.

Adresregister

Data

2

Geef hieronder de URL op waarop de data gepubliceerd is die u wilt valideren.

URI

3

Geef hieronder eventuele optionele headers mee.

Header key Header value

4

Valideer

[Klik hier om te valideren](#)

1 > choose a profile

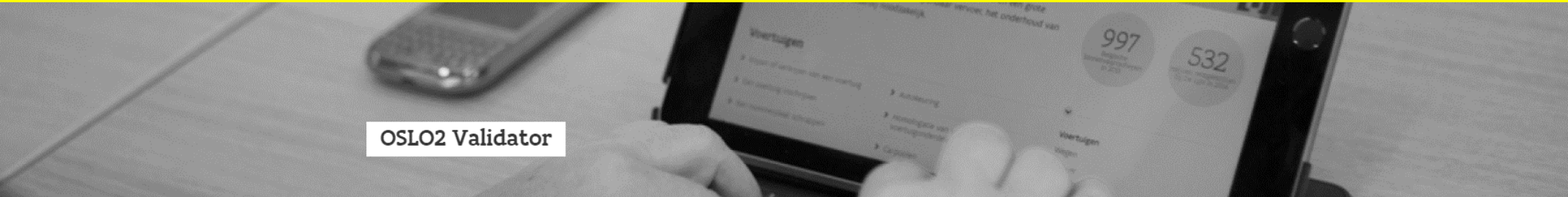
2 > enter URI

3 > enter parameters

4 > validate

SHACL validator: demo

> Result before correction



Terug

Resultaat in TTL | **Resultaat in tabel** | Data | Regels

Resultaat in tabel

Hieronder ziet u overzicht van de validatieresultaten.

Show entries

Search:

Focus Node	Result Message	Result	Source Constraint	Source Constraint Component	Source Shape	Value	
https://mydata.org/id/myService/123	Less than 1 values	http://data.europa.eu/m8g/hasCompetentAuthority	http://www.w3.org/ns/shacl#Violation	NA	http://www.w3.org/ns/shacl#MinCountConstraintComponent	..b0	NA*
https://mydata.org/id/myService/123	Less than 1 values	http://purl.org/dc/terms/...	http://www.w3.org/ns/shacl#Violation	NA	http://www.w3.org/ns/shacl#MinCountConstraintComponent	..b1	NA*
https://mydata.org/id/myService/123	Less than 1 values	http://purl.org/dc/terms/title	http://www.w3.org/ns/shacl#Violation	NA	http://www.w3.org/ns/shacl#MinCountConstraintComponent	..b2	NA*

Showing 1 to 3 of 3 entries

INVALID

3 errors

First | Previous | 1 | Next | Last

SHACL validator: demo

> Result after correction

OSLO2 Validator

Terug

Resultaat in TTL **Resultaat in tabel** Data | Regels

Resultaat in tabel

Hieronder ziet u overzicht van de validatieresultaten.

Show entries

Search:

Focus Node	Result Message	Result Path	Shape	Value
------------	----------------	-------------	-------	-------

No data available in table

Showing 0 to 0 of 0 entries

First Previous Next Last

VALID

0 errors

Use Cases?

Would our data
fit the model?

Is my
code
correct?
?

I want to test
this new
service!

Can I deploy
the service?

**Business
Analyst**

**Develo
per**

**Product
Owner**

**Contract
or**

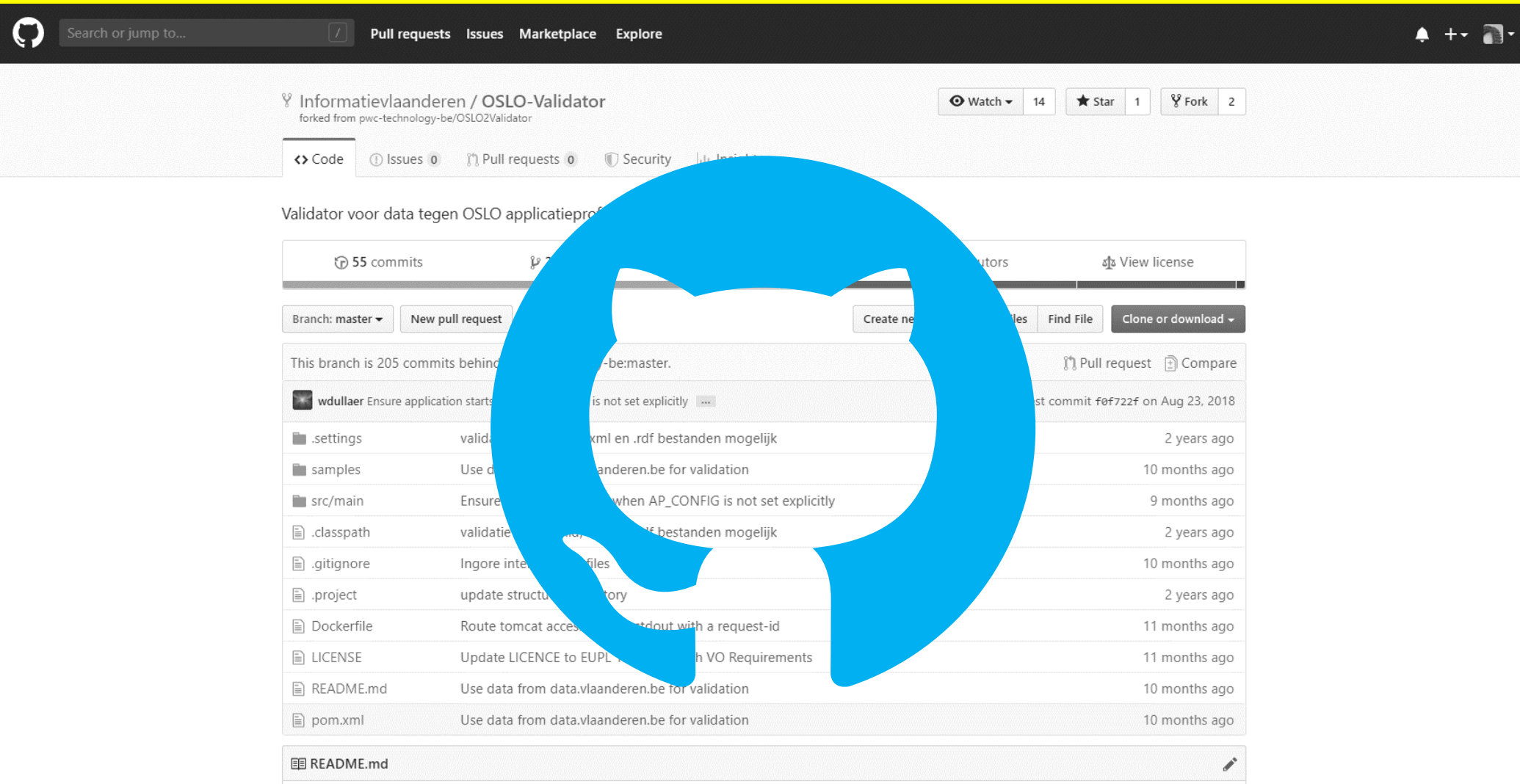
We SHARE

- > SHACL validator service
- > Source code of the validator
- > Toolchain 2 produce SHACL



Source code

> Open Software on Github



The screenshot shows the GitHub interface for the repository 'Informatie Vlaanderen / OSLO-Validator'. The repository is a fork of 'pwc-technology-be/OSLO2Validator'. The page displays the commit history for the 'master' branch, showing 55 commits. A large blue GitHub logo is overlaid on the commit list. The commit list includes files such as '.settings', 'samples', 'src/main', '.classpath', '.gitignore', '.project', 'Dockerfile', 'LICENSE', 'README.md', and 'pom.xml'. The commit messages describe updates to validation logic and infrastructure.

Search or jump to... Pull requests Issues Marketplace Explore

Informatie Vlaanderen / OSLO-Validator
forked from pwc-technology-be/OSLO2Validator

Watch 14 Star 1 Fork 2

Code Issues 0 Pull requests 0 Security

Validator voor data tegen OSLO applicatieprofiel

55 commits View license

Branch: master New pull request Create new branch Find File Clone or download

This branch is 205 commits behind pwc-technology-be:master. Pull request Compare

Commit	Message	Time
wdullaer	Ensure application starts when AP_CONFIG is not set explicitly	2 years ago
	validatie van xml en .rdf bestanden mogelijk	2 years ago
	Use data from data.vlaanderen.be for validation	10 months ago
	Ensure application starts when AP_CONFIG is not set explicitly	9 months ago
	validatie van xml en .rdf bestanden mogelijk	2 years ago
	Ignore intermediate files	10 months ago
	update structure repository	2 years ago
	Route tomcat access log stdout with a request-id	11 months ago
	Update LICENCE to EUPL and add VO Requirements	11 months ago
	Use data from data.vlaanderen.be for validation	10 months ago
	Use data from data.vlaanderen.be for validation	10 months ago

README.md

Source code

- > Run the validator on your machine with docker



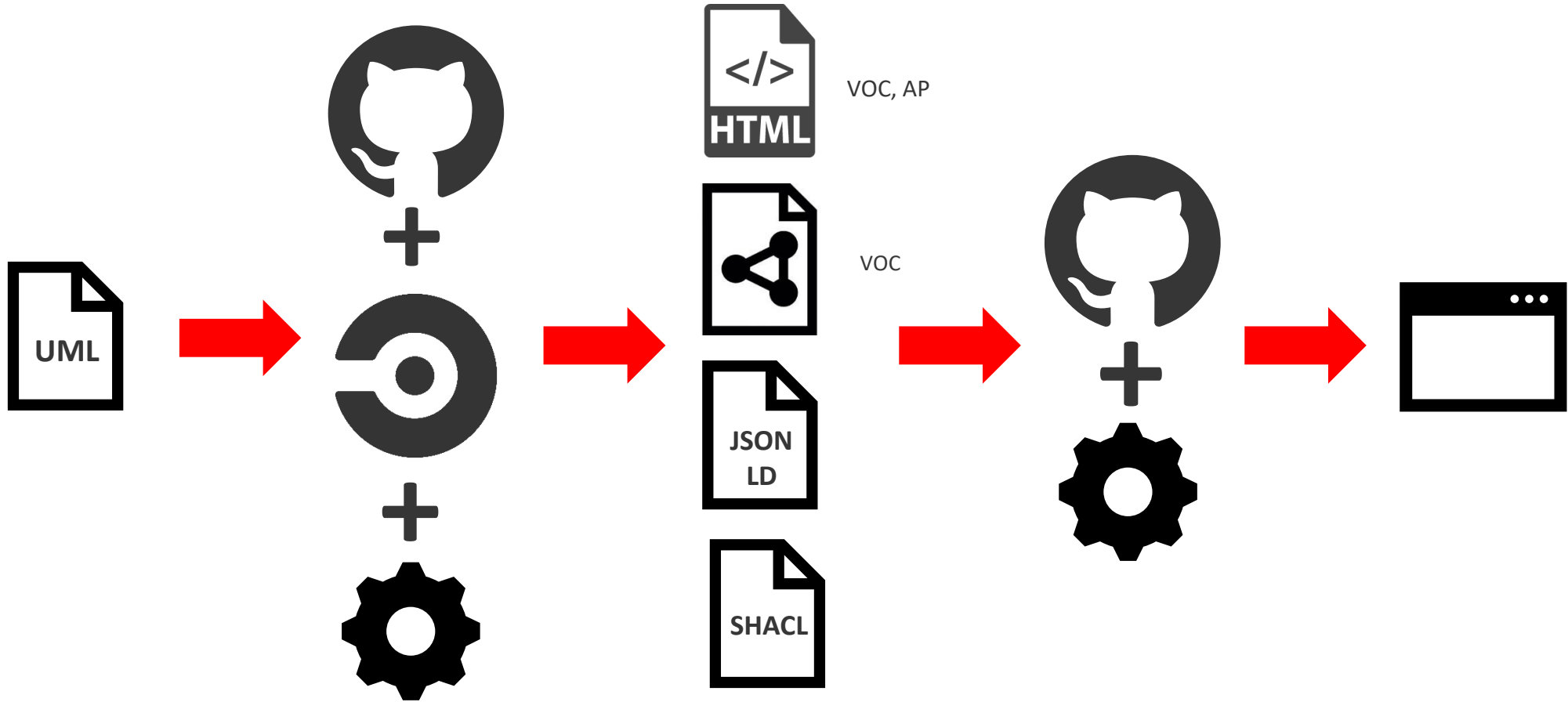
Toolchain

> UML > Artifacts

- VOC
- Application profile
- JSON-LD
- SHACL



Toolchain



Technicalities

> Used technologies

UML

RDF

RDFS

OWL

SHACL

JSON-LD

GITHUB

DOCKER

APACHE JENA

TOPBRAID API

TOMCAT

CIRCLE CI

Thanks for your attention



Find us @



[HTTPS://data.vlaanderen.be](https://data.vlaanderen.be)

AND at this conference!

We are



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