



WORKSHOP SHACL

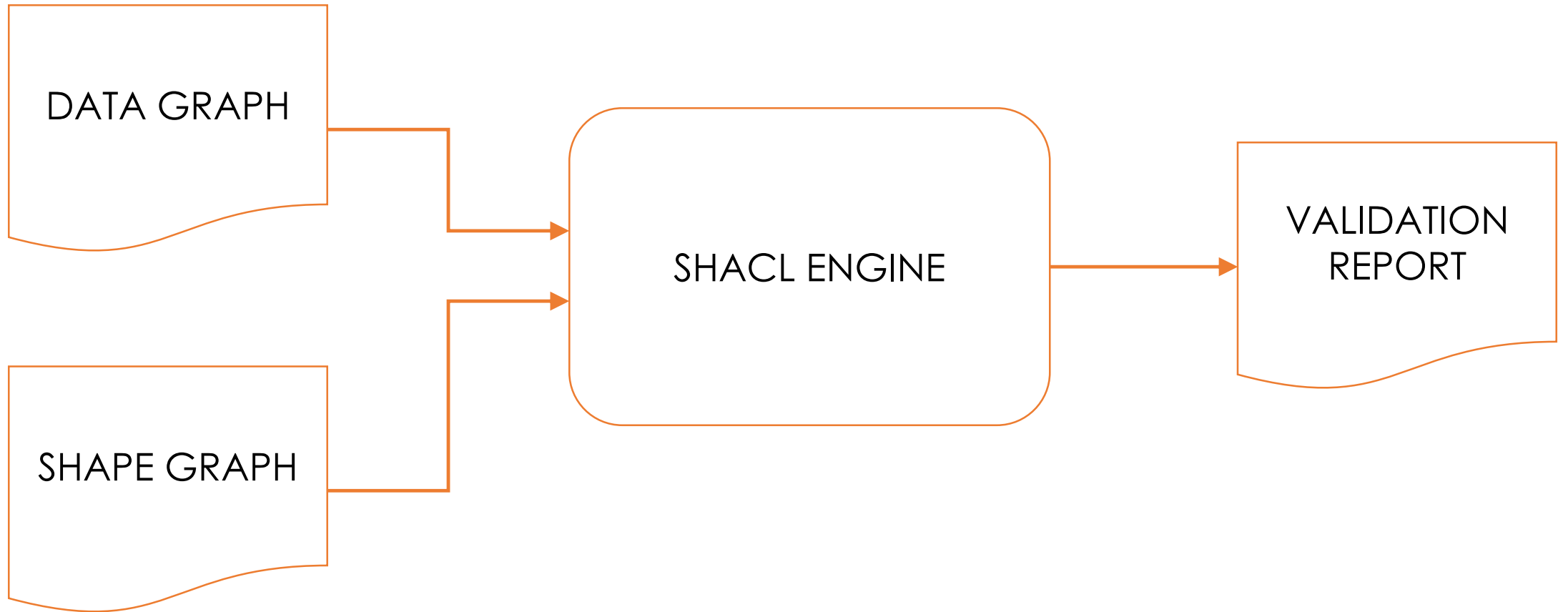
- **Jan Voskuil | Jesse Bakker | Taxonic**
- PLDN WORKSHOP
- 31 januari 2019
- *Platform Linked Data Nederland*



20 juli 2017:
de geboorte van SHACL

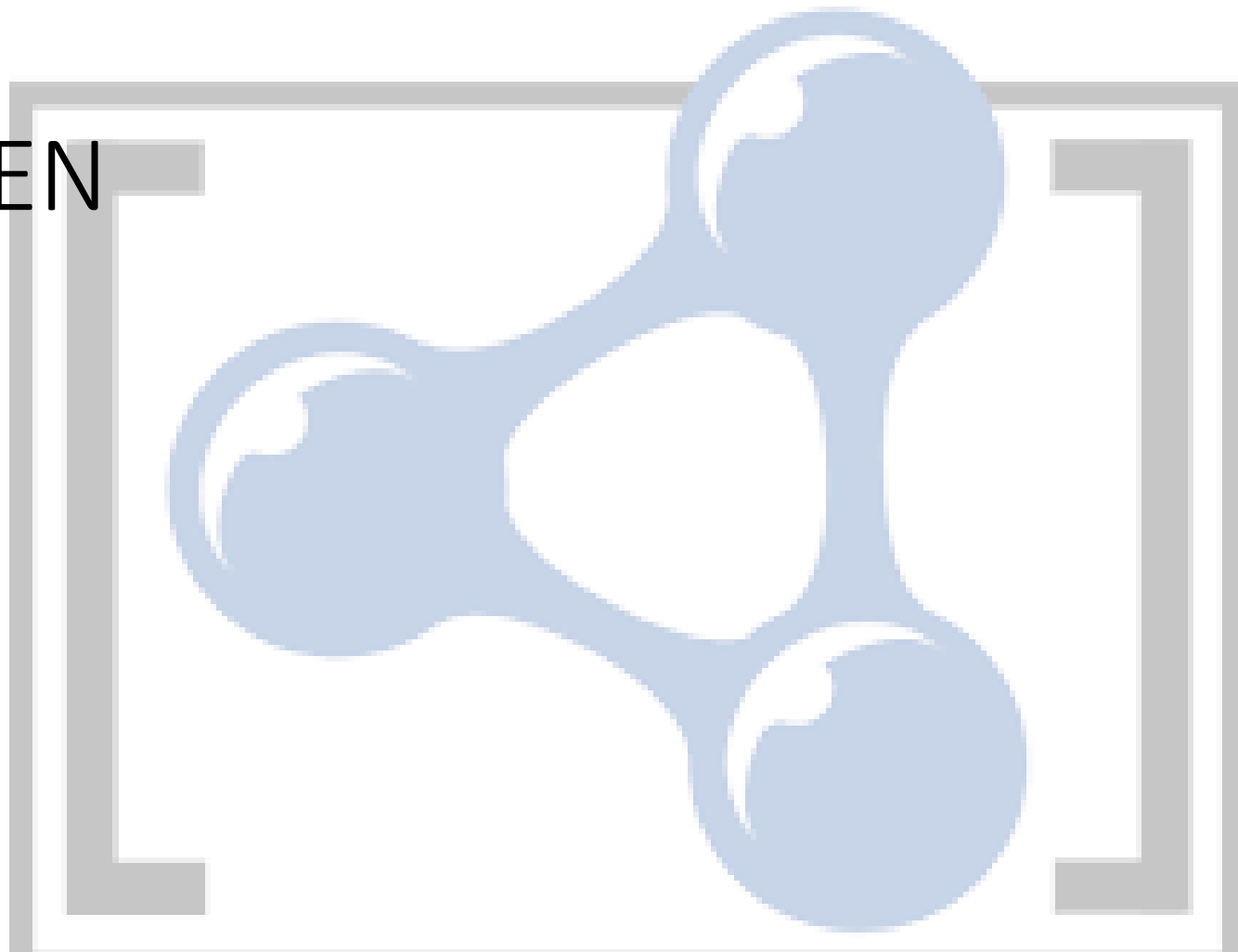
- **Shape Constraint Language**
- W3C Recommendation
- Uitdrukken van **constraints**
- Validatie
- Ruim 2 jaar hard werken
- Vele vaders en moeders
 - TopQuadrant
 - ShEx-community
 - **Taxonic**

VALIDATIE

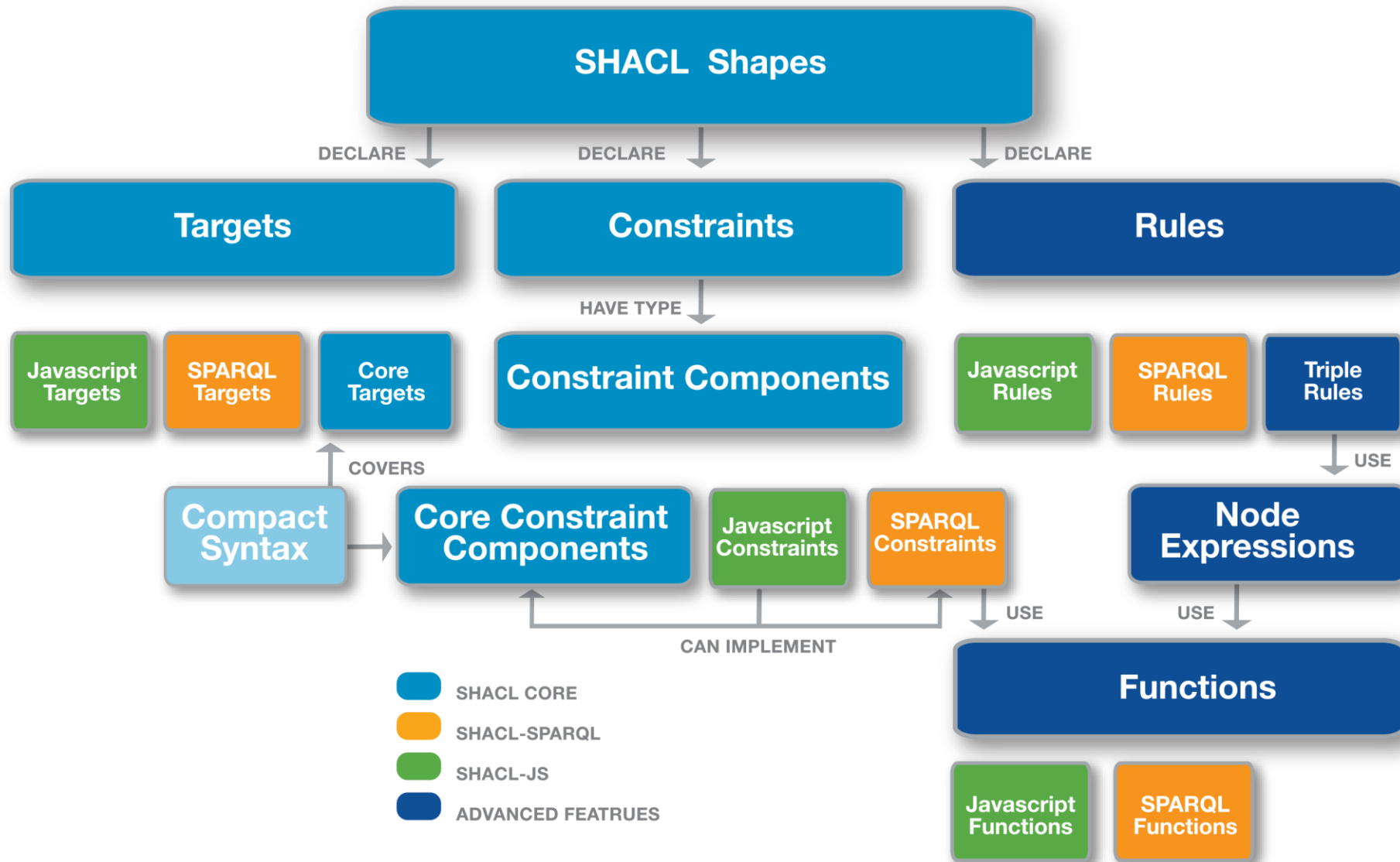


ANDERE TOEPASSINGEN

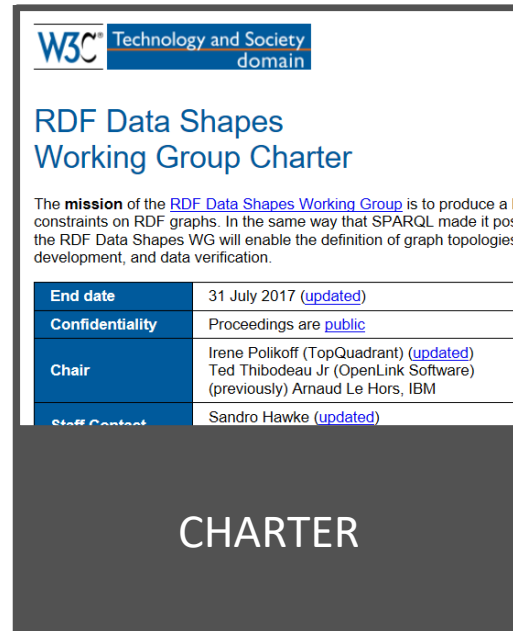
- Definiëren modelgedreven GUIs
- Gegevensuitwisseling
- Code-generatie
- Data-integratie
- **SHACL RULES**
- Inferencing
- Et cetera



SHACL



SHACL Resources



W3C Technology and Society domain

RDF Data Shapes Working Group Charter

The **mission** of the [RDF Data Shapes Working Group](#) is to produce a language for constraints on RDF graphs. In the same way that SPARQL made it possible to query RDF graphs, the RDF Data Shapes WG will enable the definition of graph topologies, development, and data verification.

End date	31 July 2017 (updated)
Confidentiality	Proceedings are public
Chair	Irene Polikoff (TopQuadrant) (updated) Ted Thibodeau Jr (OpenLink Software) (previously) Arnaud Le Hors, IBM
Staff Contact	Sandro Hawke (updated)

CHARTER



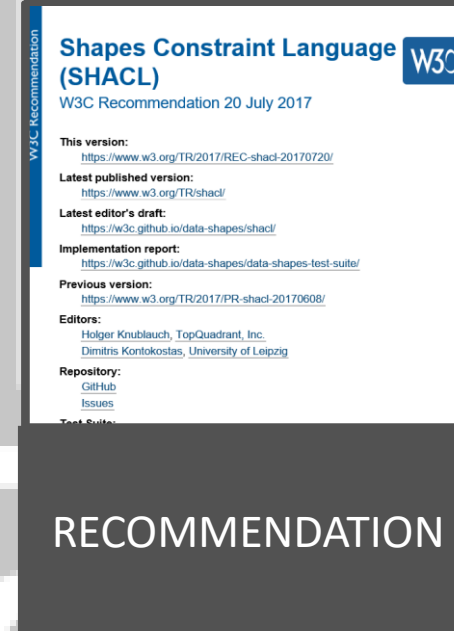
W3C COMMUNITY & BUSINESS

SHACL COMMUNITY GROUP

[Home](#) / SHACL Community Group

The mission of the SHACL Community Group is to continue the development of SHACL-related tools and resources to support the further adoption of SHACL after the [W3C Data Shapes Working Group](#) has completed its work. Outcomes include the development of educational material (primers, best practices), the application of frequently used RDF vocabularies, libraries of constraint components for common constraint integration with established technologies such as JavaScript, further work on theory and practical rules, a compact SHACL syntax, and a SHACL internet protocol. Additional work may go into "standard" fixes to some gaps left in the current SHACL specifications (e.g., handling recursion).

COMMUNITY GROUP



W3C Recommendation

Shapes Constraint Language (SHACL)

W3C Recommendation 20 July 2017

This version:
<https://www.w3.org/TR/2017/REC-shacl-20170720/>

Latest published version:
<https://www.w3.org/TR/shacl/>

Latest editor's draft:
<https://w3c.github.io/data-shapes/shacl/>

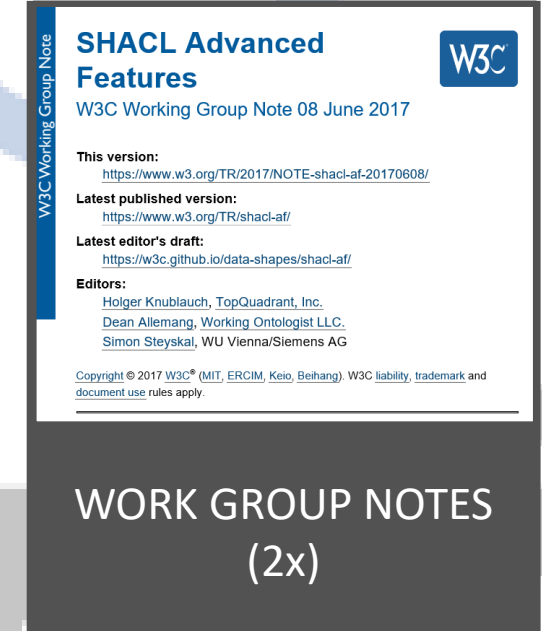
Implementation report:
<https://w3c.github.io/data-shapes/data-shapes-test-suite/>

Previous version:
<https://www.w3.org/TR/2017/PR-shacl-20170608/>

Editors:
[Holger Knublauch](#), TopQuadrant, Inc.
[Dimitris Kontokostas](#), University of Leipzig

Repository:
[GitHub](#)
[Issues](#)
[Test Suite](#)

RECOMMENDATION



W3C Working Group Note

SHACL Advanced Features

W3C Working Group Note 08 June 2017

This version:
<https://www.w3.org/TR/2017/NOTE-shacl-af-20170608/>

Latest published version:
<https://www.w3.org/TR/shacl-af/>

Latest editor's draft:
<https://w3c.github.io/data-shapes/shacl-af/>

Editors:
[Holger Knublauch](#), TopQuadrant, Inc.
[Dean Allemang](#), Working Ontologist LLC.
[Simon Steyskal](#), WU Vienna/Siemens AG

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WORK GROUP NOTES (2x)

SHACL Resources



MORGAN & CLAYPOOL PUBLISHERS

Validating RDF Data

Jose Emilio Labra Gayo
Eric Prud'hommeaux
Iovka Boneva
Dimitris Kontokostas

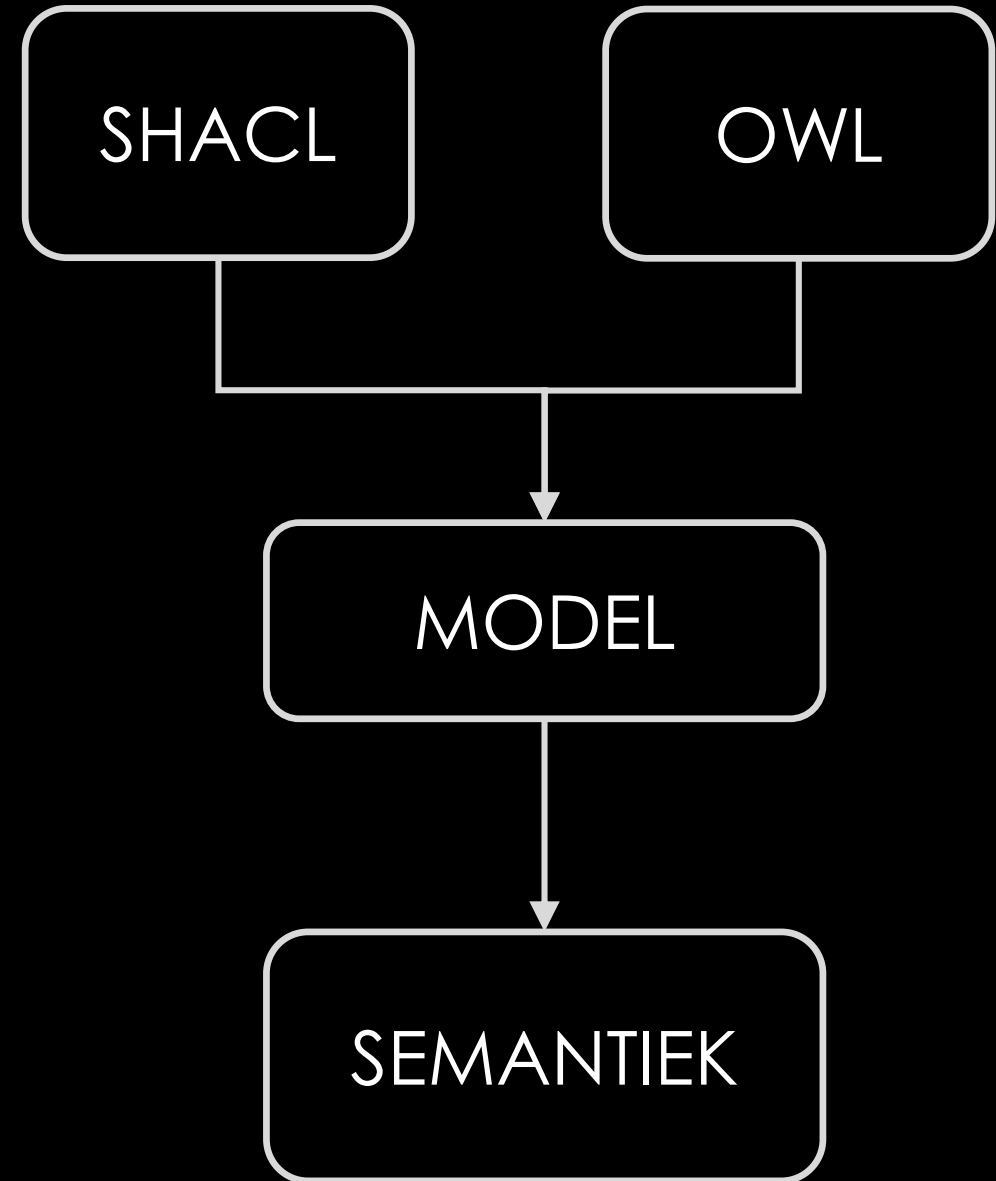
SYNTHESIS LECTURES ON
THE SEMANTIC WEB: THEORY AND TECHNOLOGY
Ying Ding and Paul Groth, *Series Editors*

MODELEERTAAL NAAST OWL & RDFS

OWL & RDFS – Inheritance

SHACL – Structural constraints

- > Domain
- > Range
- > Cardinality
- > Et cetera



OWL & RDFS

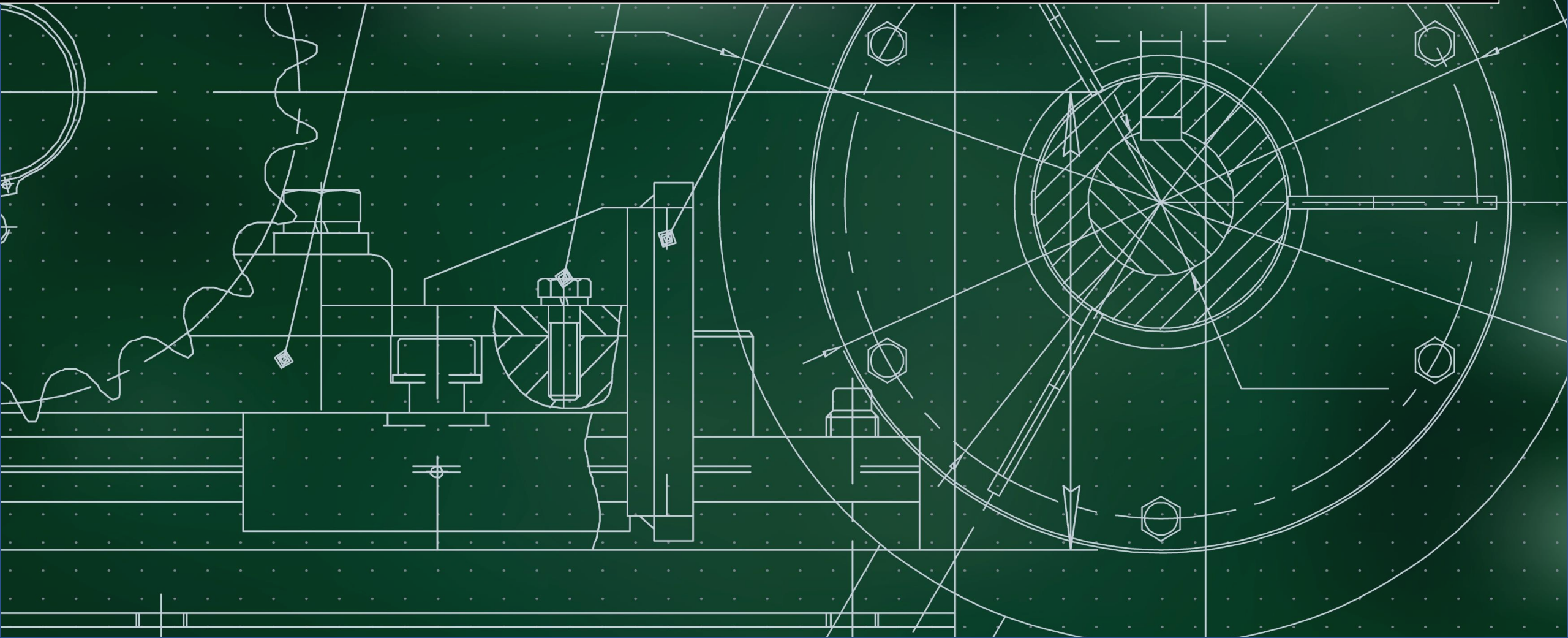
- > Inferencing op het web
- > Bepaalde kijk op AI
- > Het probleem:
 - > **Geen constraints op structuur**
 - > Gebouwd om om te kunnen gaan met **contradicties**

- > W3C Member Submissions:
 - > SPIN (TopQuadrant)
 - > ShEX (academia)
 - > Resource Shapes (IBM)
- > Ad-hoc oplossingen:
 - > StarDog DB, et cetera

> SEMANTIEK:

> OWL: Wat kan ik afleiden uit deze data? (KNOWLEDGE ENGINEERING)

> SHACL: Wat kan ik met deze data doen? (BUSINESS PROCESSES)



> SEMANTIEK:

> OWL: Wat kan ik afleiden uit deze data? (KNOWLEDGE ENGINEERING)

> SHACL: Wat kan ik met deze data doen? (BUSINESS PROCESSES)

A technical drawing or blueprint background with white lines on a dark green grid. The drawing includes various geometric shapes, circles, and lines, suggesting a mechanical or engineering context. The drawing is partially obscured by text boxes.

**RDFS & OWL leggen geen constraints op
SHACL is een noodzaak voor modelleren**