



Ministry of Infrastructure and the
Environment

BIM and Road Maintenance: Goals and Challenges

BIM at Rijkswaterstaat

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Rijkswaterstaat

Dutch Ministry of Infrastructure and
Watermanagement

Amsterdam, Geo|Design +BIM,

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BIM at Rijkswaterstaat

As Public Client ensure

- Asset information in control:
 - up to date
 - reliable
 - correct
- Information flow in control:
 - the right information
 - in the right format
 - at the right time

Develop and use BIM at RWS 2012-2018
(27 large infra projects)





BIM standards in RWS-projects



ILS

Information Delivery Specification
Rijkswaterstaat



OTL

Object Type Library
Rijkswaterstaat



VISI

IDM part 2 (ISO 29481)



COINS

ISO to be

These standards make sure that:

- We use one uniform language
- Structured data transfer
- Clear agreements on how data transfer is executed



Goals BIM Road Maintenance; first project

Long term goal;

Predictable maintenance and predictable performance of roads

Short term goal in project Southern Netherlands;

Next to Asset Information (replacements, repairs);

- data on failures and defects
- data on condition

Mid term goal;

Linking to data such as sensordata, trafficdata, weatherdata etc.





Challenges



Dataneeds

BIM database

IT



Dataroom procurement/ BIM dataroom

The screenshot displays a web-based BIM dataroom interface. The top navigation bar includes the title "Dataroom Prestatiecontract Droog Zuid-Nederland" and the URL "Dataroom-1.0c.cnr". The user is identified as "hester.vander.voor@rws.nl".

The interface is divided into several panels:

- Left Panel:** A tree view showing the project hierarchy. The selected item is "R58_011.993_L_q - 312174015". Below the tree, the "Eigenschappen" (Properties) section shows:
 - Aanmaakdatum: [empty]
 - ID: R58_011.993_L_q
 - Naam: 312174015
- Top Panel:** A toolbar with various map navigation and analysis tools, including "Verschuif kaart", "Zoom in", "Zoom uit", "Opstart gebied", "Valdig gebied", "Verge gebied", "Vergelijk gebied", "Punt bevestiging", "Scale 1: 25400", and "Jump to a map bookmark...".
- Map Layers Panel:** A list of layers for the map, categorized into:
 - Operational Layers:
 - Metreling
 - KernGIS 0-meting
 - RWS Regiogebieden
 - CBS - caller
 - Base Maps:
 - PDOK-achtergrond luchtfoto
 - Basiskaarten/Topo
- Map:** A 2D map showing a road network with green and yellow highlights. The map includes a scale bar (0 to 2000m) and a north arrow.



Challenges Processes/Mindset





The maintenance project in Southern Netherlands

- Procurement almost done
- January 1st start with 3 contractors
- Most data will be about data on failures and defects and data on condition. Only scarcely about replacements, repairs
- Improvement step by step
- We need enthusiasm
- Conclusion; It is still a development







Data during project

CBIS ALFamail more

SAA, A1/A6 Diemen-Almere Havendreef (2013) - wim.verbruggen@rws.nl

BROWSE Changes Check In Check Out Monitor Reports

data MAP

Timeline

Entity Browser

Tree of PhysicalObject

- Assets
 - Fysieke objecten
 - Weglichamen
 - Kunstwerken
 - OB01703.3 / Gooisekant viaduct
 - OB00436.3 / Viaduct
 - OB00418.3 / Brugdek
 - OB00424.2 / Landhoofd
 - OB00424.4 / Landhoofd
 - OB00430.1 / Pijler
 - OB00430.7 / Pijler
 - OB00518.1 / Bestrating
 - OB00518.10 / Bestrating
 - OB00518.12 / Bestrating
 - OB00518.17 / Bestrating
 - OB00518.23 / Bestrating
 - OB00518.24 / Bestrating
 - OB00518.25 / Bestrating
 - OB00518.31 / Bestrating
 - OB00518.32 / Bestrating
 - OB00518.48 / Bestrating
 - OB00973.3 / Talud

Map

Selected object: [Kunstwerken](#)

Viewer: OpenLayers WFS

Objecttype: OB00116 / Kunstwerk

