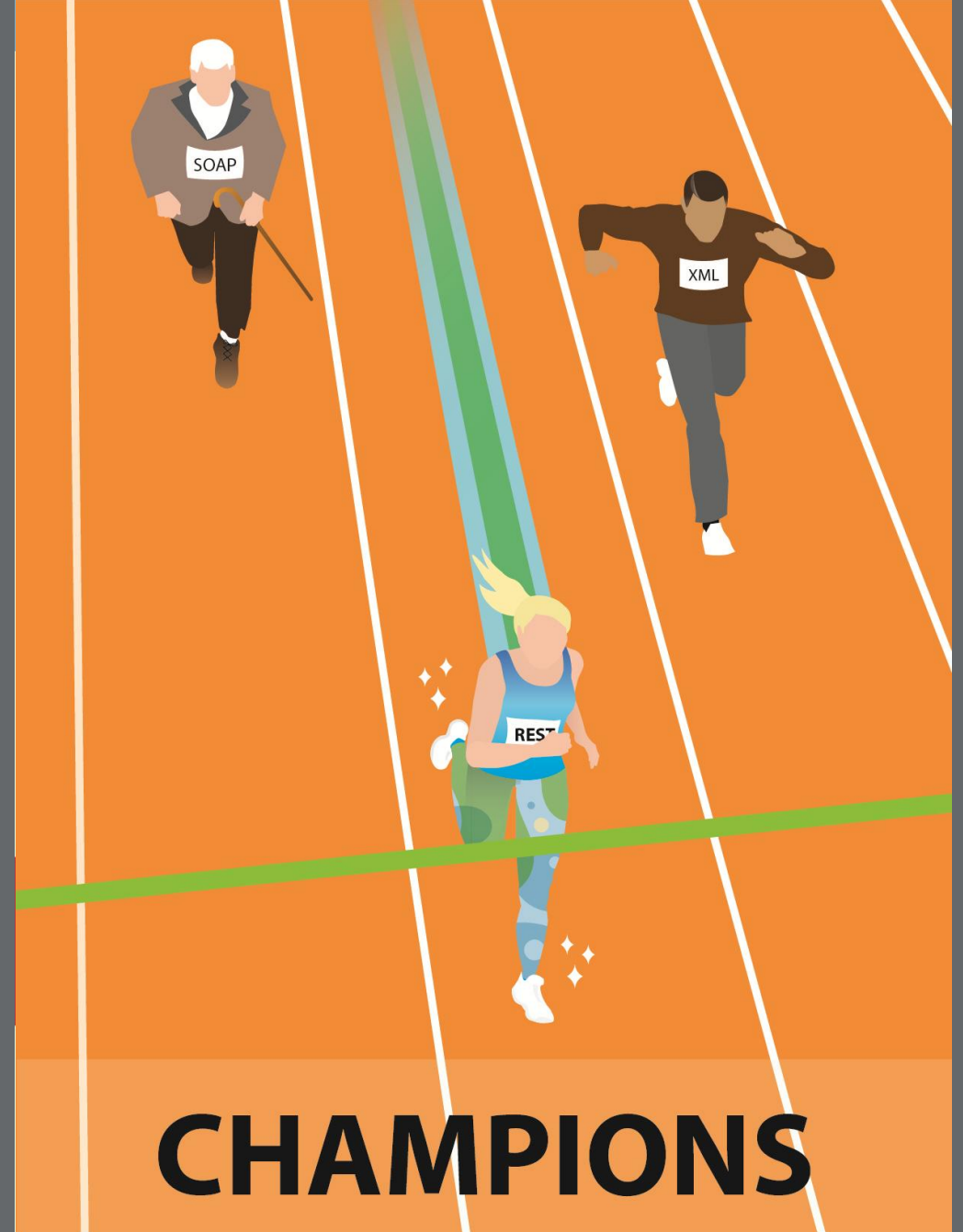


# Zelf aan de slag

OGC API Features Server

OGC API Features (web)client



## CHAMPIONS

*Follow the OGC API Standards*

# nodejs, express – javascript

**Node.js** is een [open source](#) en [multiplatform](#) JavaScript-runtime-omgeving waarmee [JavaScript](#) buiten een browser uitgevoerd kan worden. Met Node.js kunnen ontwikkelaars JavaScript gebruiken voor [command-line-tools](#) en [server-side scripting](#). Het resultaat is een "JavaScript overal"-paradigma dat [webapplicatie-ontwikkeling](#) verenigt rond een enkele programmeertaal, in plaats van verschillende talen voor server- en client-side scripts.<sup>[3]</sup>

Express 4.19.2

Fast, unopinionated, minimalist  
web framework for [Node.js](#)

```
$ npm install express --save
```

🔊 Express 5.0 beta documentation is now available.

The beta [API documentation](#) is a work in progress. For information on what's in the release, see the Express [release history](#).

Node.js



<b>Ontwikkelaar(s)</b>	Ryan Lienhart Dahl, <a href="#">Node.js</a> <a href="#">Developers</a> ↗, <a href="#">Joyent</a>
<b>Uitgebracht</b>	27 mei 2009 (15 jaar)
<b>Recentste versie</b>	22.0.0 (24 april 2024) <sup>[1]</sup> ✎
<b>Onderhoudsversie</b>	18.14.2 (LTS) <sup>[2]</sup> (2023-02-21)
<b>Status</b>	Actief
<b>Besturingssysteem</b>	Linux, Microsoft Windows, BSD, macOS
<b>Geschreven in</b>	<a href="#">C</a> , <a href="#">C++</a> , <a href="#">JavaScript</a>
<b>Categorie</b>	Softwareplatform
<b>Licentie(s)</b>	<a href="#">MIT</a>
<b>Versiebeheer</b>	<a href="#">Officiële broncode</a> ↗
<b>Website</b>	( <a href="#">ar</a> ) ( <a href="#">de</a> ) ( <a href="#">en</a> ) <a href="#">Projectpagina</a> ↗

Portaal 

**Informatica**  
**Vrije software**

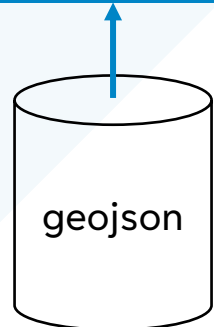
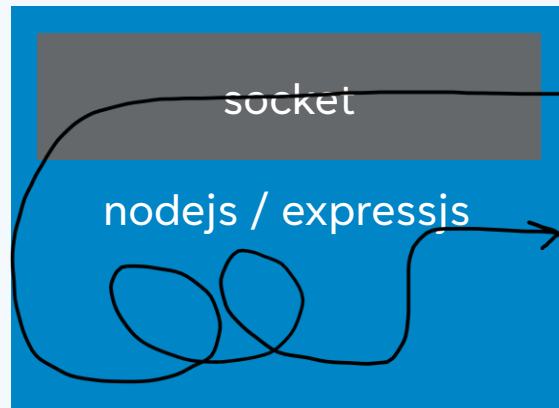
# OGC API Features – ‘Routes’

- Landing page <https://api.pdok.nl/lv/bgt/ogc/v1>
- OAS <https://api.pdok.nl/lv/bgt/ogc/v1/api>
- Collections <https://api.pdok.nl/lv/bgt/ogc/v1/collections>
- Collection-id <https://api.pdok.nl/lv/bgt/ogc/v1/collections/bak>
- Items <https://api.pdok.nl/lv/bgt/ogc/v1/collections/bak/items>
- Item-id: <https://api.pdok.nl/lv/bgt/ogc/v1/collections/bak/items/5d394ef5-6a5d-5011-a729-29def1c51dd9>

## Parameters:

- ?f=json or ?f=html
- ?crs vb: ?crs=http://www.opengis.net/def/crs/EPSG/0/28992
- ?bbox vb: ?bbox=160.6,-55.95,-170,-25.89

# ‘Architectuur’



req  
GET /buurten/collections/items?f=json HTTP/1.1

res  
HTTP/1.1 200 OK  
X-Powered-By: Express  
Content-Crs: urn:ogc:def:crs:OGC:1.3:CRS84  
Content-Type: application/json; charset=utf-8  
Content-Length: 233117  
ETag: W/"38e9d-smcmFErKAg9bqFT/m2hZSI2J7pA"  
Date: Mon, 22 Jul 2024 07:47:04 GMT  
Connection: keep-alive  
Keep-Alive: timeout=5

```
{ "type": "FeatureCollection", "features": [ { "type": "Feature", "geometry": { "type": "Polygon", "coordinates": [ [ [ 4.836904719830233, 51.71261186219708 ], [ 4.842367931828861, 51.67965404535827 ], [ 4.781071321809747, 51.66390211812952 ], [ 4.787505939028108, 51.63704801116956 ], [ 4.731388847030403, 51.64299386821649 ], [ 4.699059657817242, 51.638073190658574 ], [ 4.684902977273319, 51.666366490887185 ], [ 4.64513658535018, 51.71906732347356 ], [ 4.676304223904792, 51.724923649009945 ], [ 4.698553145800539, 51.72199204842582 ], [ 4.733650891305746, 51.73650736658969 ], [ 4.764199375929489, 51.759857403256646 ], [ 4.853126170313312, 51.759857403256646 ], [ 4.853126170313312, 51.759857403256646 ] ] ] ] }
```

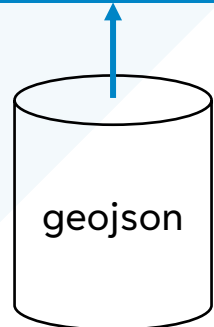
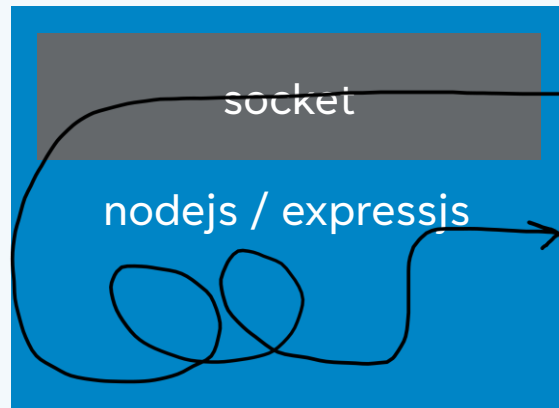
Bruno

WebBrowser

QGIS, Esri, ...

curl, ...

# ‘Architectuur’



Bruno

WebBrowser

QGIS, Esri, ...

curl, ...

# Zelf experimenteren

Wat gaan we doen?

- Een minimale basis OGC API Features server bouwen
- NodeJS
- Visual Studio Code
- Bruno (of andere API Client)
- Zie: <https://github.com/Geonovum/ogc-api-workshops/tree/main/04%20OGC-API-Features/handson>
- Een (web)client gebruiken om met code een OGC API Features endpoint te bevragen
  - Python
  - Leaflet