‘map5topo’
A New&Fresh Topographic Map of The Netherlands

Just van den Broecke - justobjects.nl
map design: Niene Boeijen - nieneb.nl

map5.nl - map5topo.nl
just@justobjects.nl

Oct 12, 2023 - Maptime AMS - TomTom HQ - Amsterdam

Free Source Geospatial Professional @ justobjects.nl

JustObjects

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Board

OSGeo·NL

Cloud Services

Map5.nl

GeoQoS

geotoko.nl

Member

OPEN GEO GROEP

FOSS Projects

pygeoapi

GeoHealthCheck

nlextract

Providing Cloud Services with Open Source/Data

About Me

Making a living from Open Source since 1997

geoqos.com
Geo Service QoS

map5.nl
Mapping Services

geotoko.nl
Geodata Store

Used by All

GeoHealthCheck

Wegue
Mapping Client

Heron
Mapping Client

NLExtract
ETL NL Data

pygeoapi
WFS3 Server

Stetl
Geo-ETL

Legend

Uses →

Service Hosting ‘Webshops’

Open Source Project

More on github.com/justb4

Dormant

OpenTraces Project formerly GeoTracing/ GeoSkating

map5.nl

Map5.nl

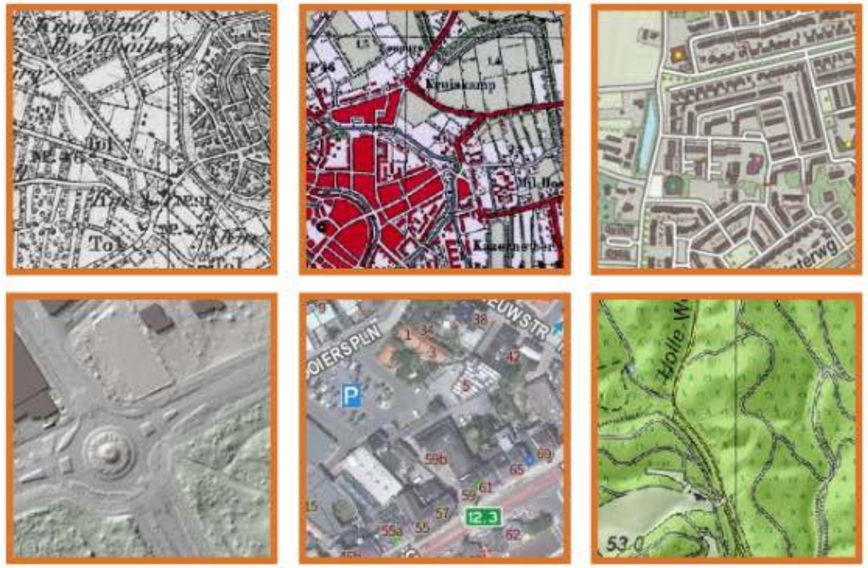
Kaarten | Abonnement | Documentatie | Voorwaarden | Support | Over | Contact

Map5.nl: de fijnste kaarten voor al je toepassingen

Topografische kaarten van Nederland via open geo webstandaarden

- Topografische kaarten: map5topo, map5topo_simple
- ** Lees meer over map5topo kaarten
- Gecombineerde Kadaster Top1000/500/250/100/50/25 rasterkaart
- Gecombineerde PDOK BRT en BGT achtergrondkaart
- PDOK Luchtfoto's met wegen en labels (geen Google Satellite meer nodig!)
- Reliëfkaarten op basis AHN2 (50cm resolutie) en AHN3 (5cm)
- Historische kaarten: Bonnebladen, TMK 1850
- Hoge schalen (tot 1:150)
- Standaarden: TMS, WMTS, WMS en Google/OSM (Web Mercator) tiles
- Tiling schema's: Nederlands (RD/PDOK) en Web Mercator (Google/OSM)
- Hoge zoom nivo's RD: 0-16 (vgl PDOK 0-14), Web Mercator: 0-23
- Gemakkelijk opnemen in toepassingen: web, desktop, mobiel
- Kaartlagen en apps via beveiligd HTTPS
- Printen (PDF) van kaarten mogelijk
- Mobiele en desktop GIS apps, o.a. de populaire KadViewer
- Gebouwd met Open Source geo-componenten
- CORS headers voor bijv 3D rendering
- Gratis of betaalde dienst
- Eigen unieke URL: geen whitelisting, ingewikkelde PKI certificaten of wachtwoorden nodig
- Helpdesk ondersteuning

Bekijk in de NLTopo App, ook op je mobiel!



Wat kost het?

Persoonlijk	Professioneel
€96.00	€960.00
per jaar - meer...	*per jaar - meer...*

*Met een betaald abonnement verdwijnt de reclame op de hogere kaart-resoluties.

About Me


Missie
Spel
1997-2009
waag society
Anno 2005
NOKIA
"De Plaets"
poorterschapsopdracht
Het Paleis op de Dam is
veel Nederlanders beke
MENU
“GPS Projects” e.g. “Frequency 1550”

Inspiration - AmsterdamREALTIME - 2002

Waag Society with Esther Polak

PolakVanBekkum

AmsterdamREALTIME

In our everyday life, we usually follow fixed paths and trajectories throughout the day: from our home to work or school, to family, to familiar stores and to places where we spend our free time. We all have invisible maps in our head: of our immediate surroundings and of the roads we take every day. The way we move around in the city, and the choices we make in this process, are determined by this mental map.

In collaboration with Waag Society, Jeroen Kee and the Amsterdam Archive

A project by / Een project van ®Waag Society / In

AMSTERDAM REALTIME

DAGBOEK IN SPOREN

project ® participate! ® links ® technology ® maps ® cumulations ® partners/press

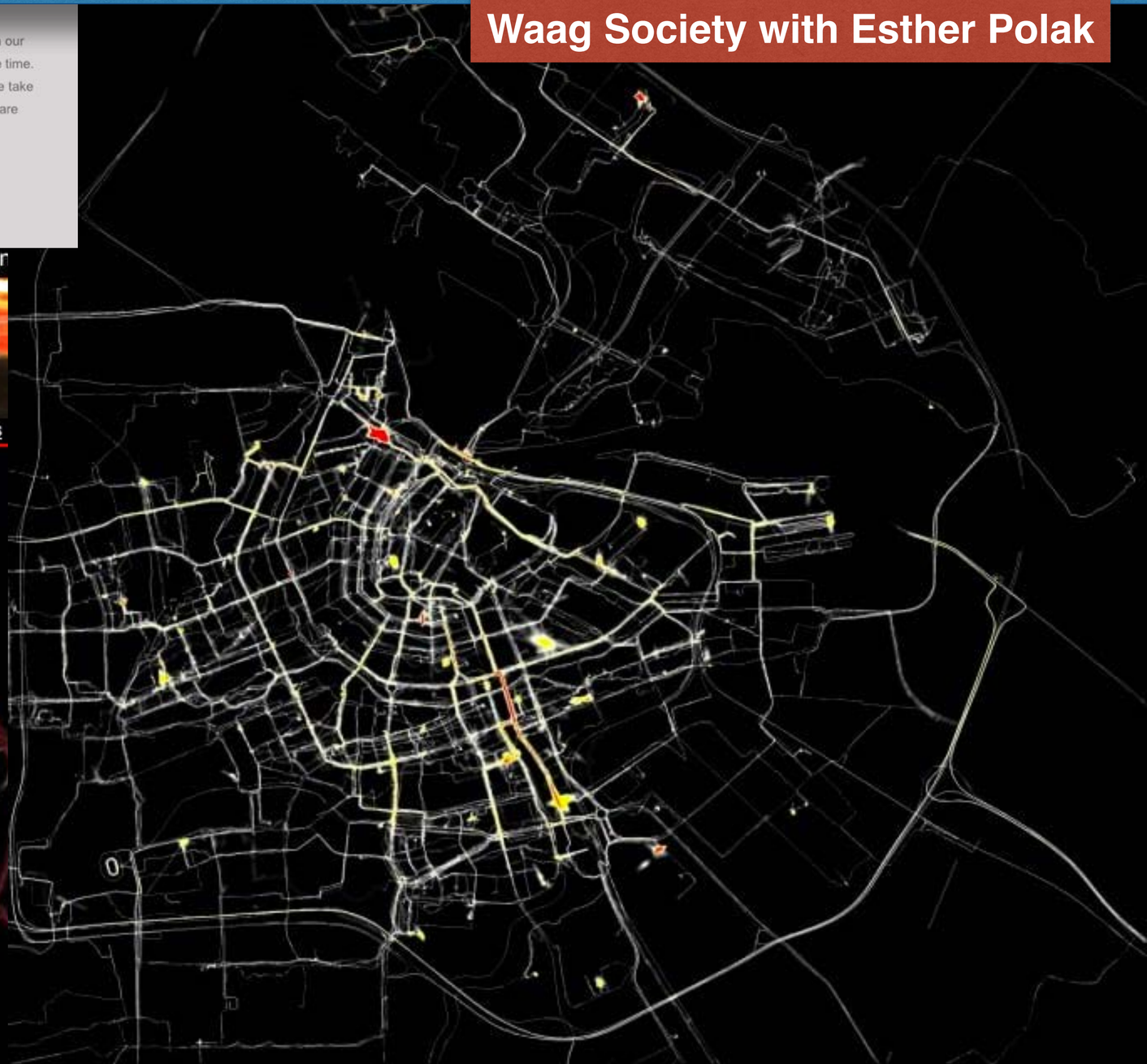
PROJECT

For the exhibition Maps of Amsterdam 1866-2000 at the Amsterdam City Archive Waag Society together with Esther Polak have set up the Amsterdam RealTime project.

Every inhabitant of Amsterdam has an invisble map of the city in his head. The way he moves about the city and the choices made in this process are determined by this mental map. Amsterdam RealTime attampts to visualize these mental maps through examining the mobile behaviour of the city's users.

During two months (3 Oct to 1 Dec 2002) all of Amsterdam's residents are invited to be equipped with a tracer-unit. This is a portable device developed by Waag Society which is equipped with GPS: Global Positioning System. Using satellite data the tracer calculates its geographical position. Therse tracers' data are sent in realtime to a central point. By visualizing this data against a black background traces, lines, appear. From these lines a (partial) map of Amsterdam constructs itself. This map does not register streets or blocks of houses, but consists of the sheer movements of real pepole.

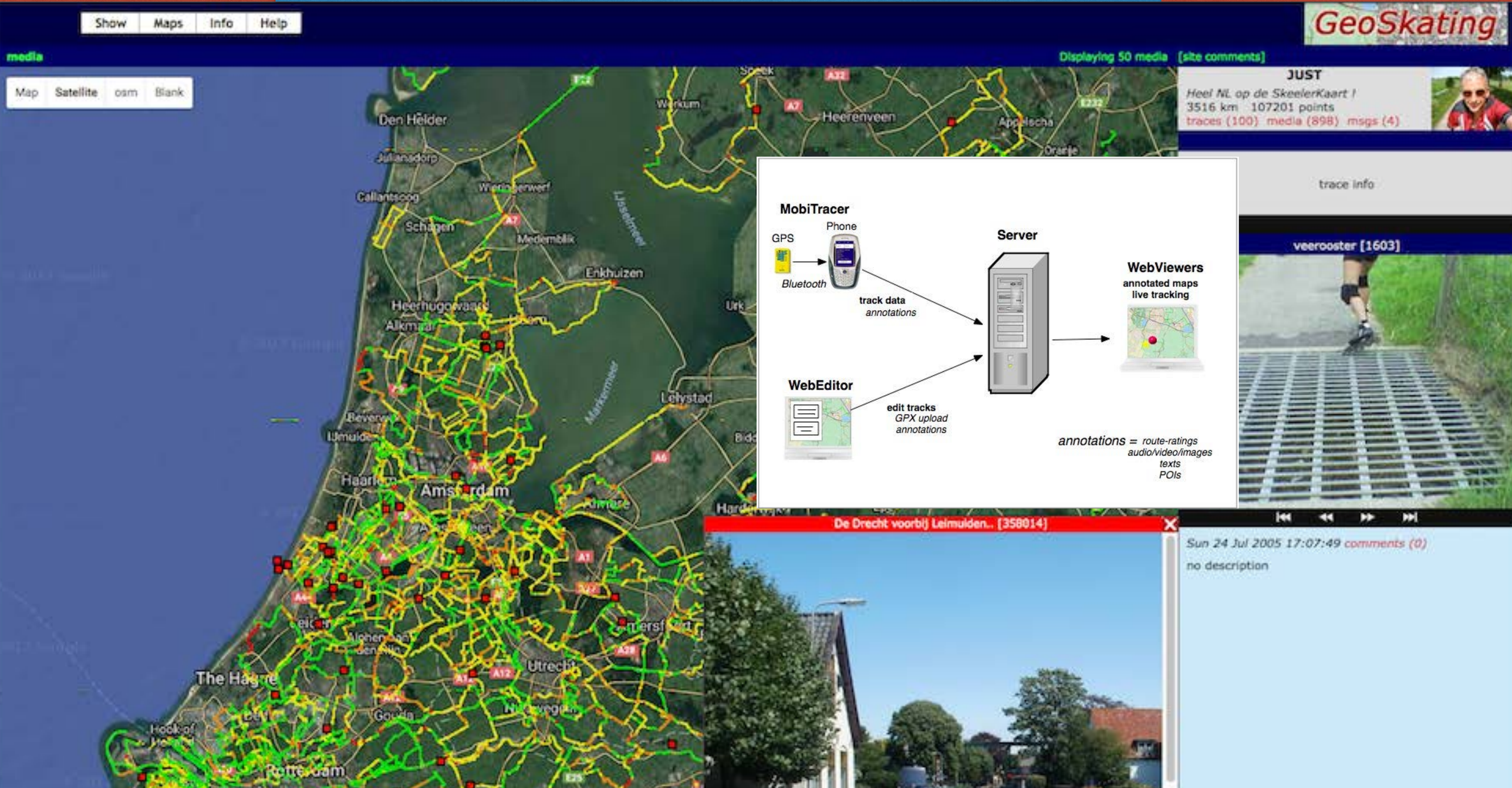
When the different types of users draw their lines, it becomes clear to the viewer just how individual the map of amsterdam can be. A cyclist will produce completley different favourite routes than someone driving a car. The means of transport, the location of home, work or other activities together with the mental map of the particular person determine the traces he leaves. This way an everchanging, very recent, and very subjective map of Amsterdam will come about. If you spend (or should we say move) a good amount of time within the 'ring' of the Amsterdam A10 Highway, you can apply here for becoming a testperson during rhe testing and development-stage or for becoming a participant during the time of the exhibition. Participants receive a print of their personal routes through the city, their diary in traces.



Projects

GeoTracing - GeoSkating - 2005+

geoskating.com



What is map5topo?

map5topo is a new (2023) topographic digital map covering The Netherlands plus parts of bordering countries. The map5topo project started in April 2022 and is ongoing since.

Source data originates from Open Datasets like the Dutch "Key Registries" ("Basisregistraties": BAG, BRT, BGT, BRK, AHN, ...) and from OpenStreetMap.

map5topo is provided by map5.nl via OGC tiled web services like WMTS, but also "XYZ" (Google/OSM tiles, a.k.a. Web Mercator) tiles. Currently only raster (image) tiles.

From: map5topo.nl

Waarom?
Por qué?
Per què?

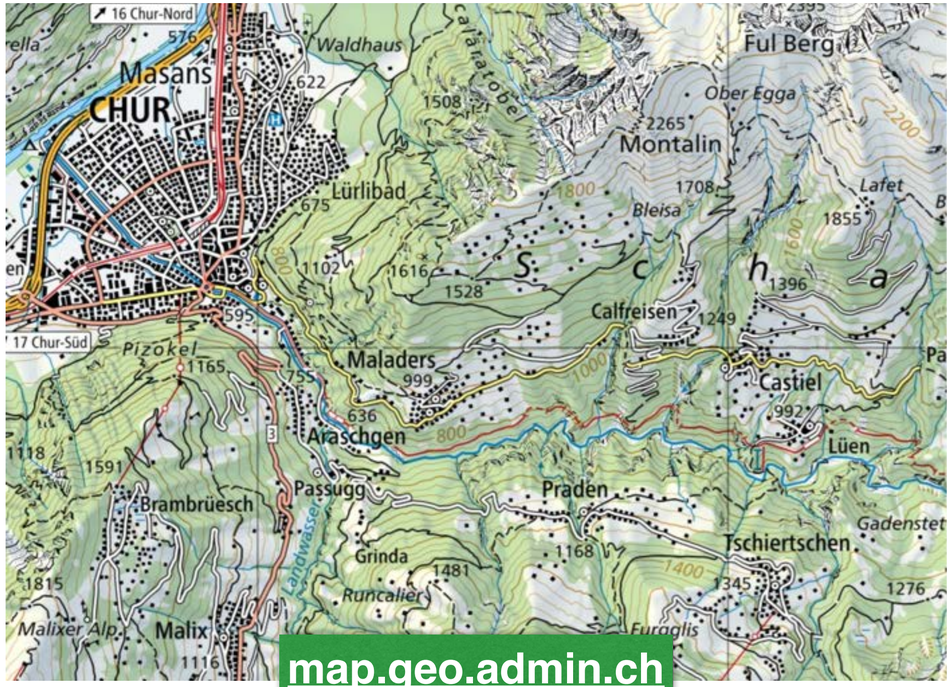
Why a new Map?

- ‘OpenTopo’ maps,
  now called ‘Topoplus’, only via SpotInfo
- Need detailed/uptodate hiking map - “Developer’s Itch”
- ***Mapmaking is fun (and addictive) !***

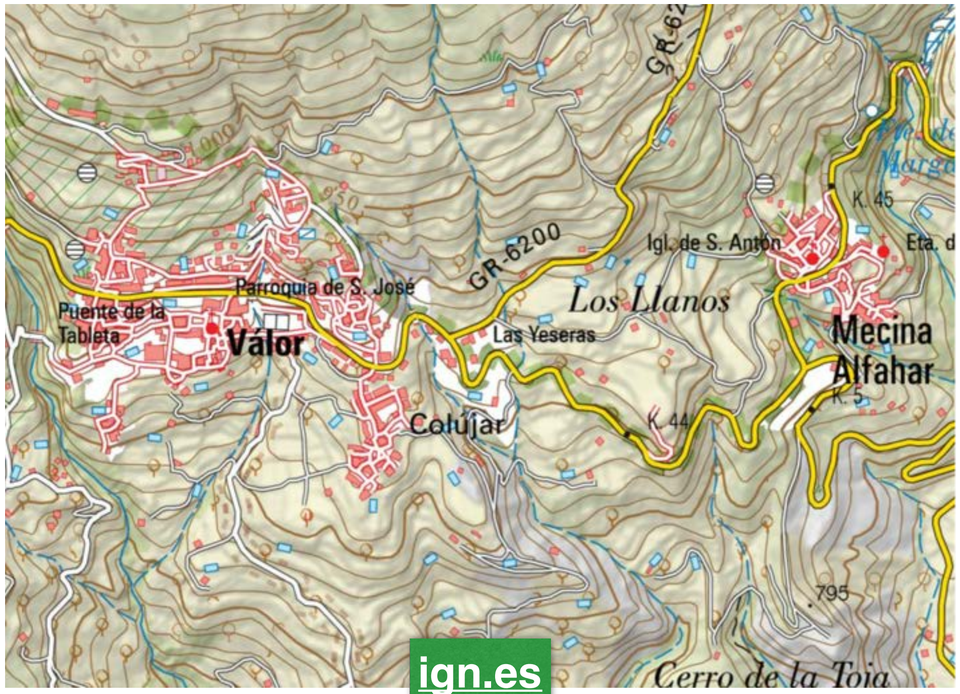
Waarom?
Por qué?
Per què?

In other countries…

basemap.de



map.geo.admin.ch



ign.es

ign.fr

Waarom?
Por qué?
Per què?

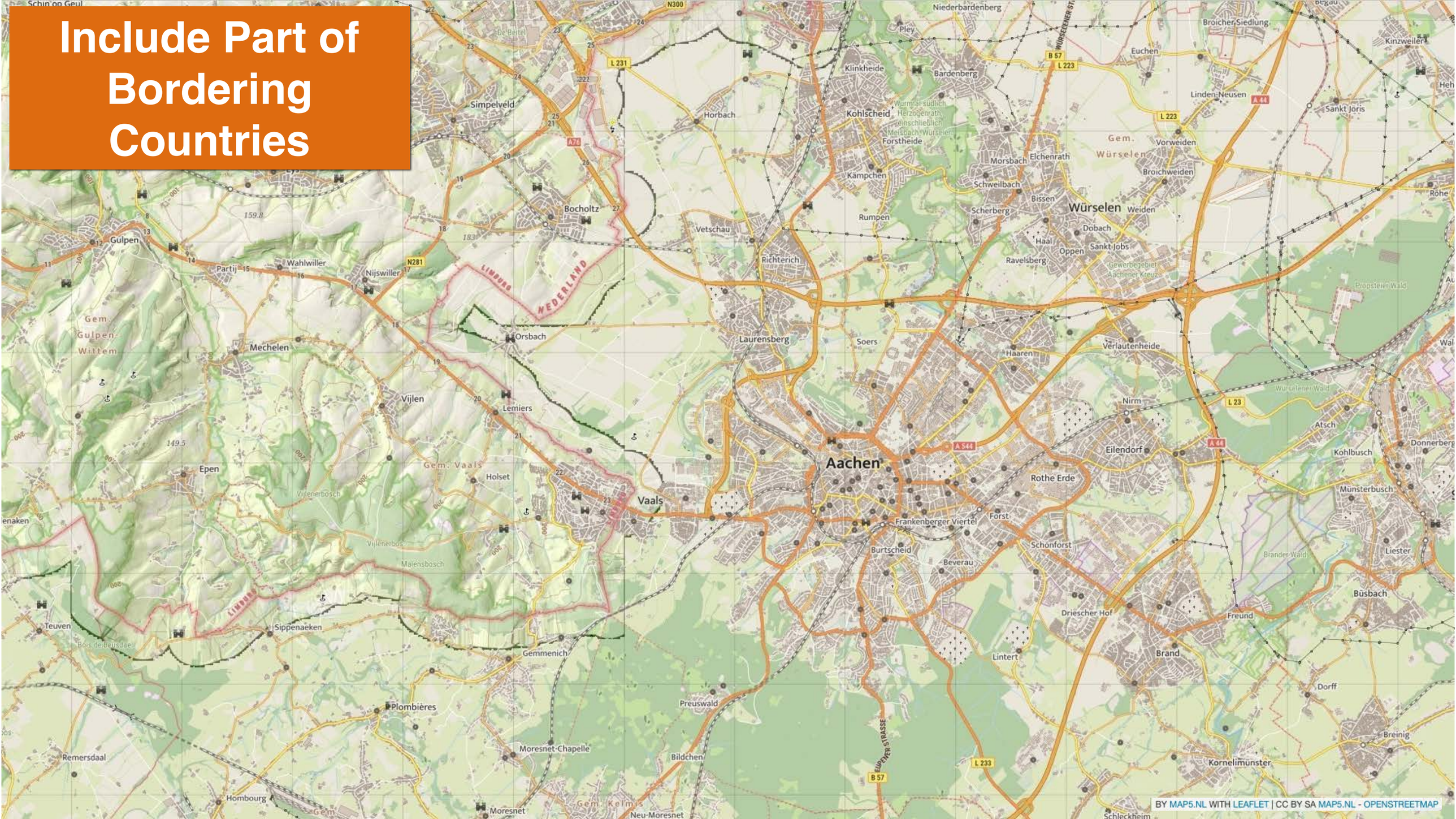
Time to show something…


map5topo
Oosterbeek
Doorwerth
Heveadorp
Rosandepolder
2e Rosandepolder
Nederrijn
UTRECHTSEWEG
N225
Stationsweg
Schelmseweg
Julianaweg
Benedendorpsweg
Van Borsselenweg
van der Molenallee
Veerweg
Drielse Rijndijk
Kerklaan
Hertenkamp Hartenstein
Pluryn - Jan Pieter Heije
Landgoed de Hemelse Berg
Landgoed Duno
Wodanswoud
Laag Wolfheze
Hoog Oorsprong
Laag Oorsprong
Oorsprong
Ziverberg
Valkenierbossen
Bilderbergbossen
Mariendaal
GEM. RENKUM
BY MAP5.NL WITH LEAFLET | CC BY SA MAP5.NL - OPENSTREETMAP

map5topo - AHN: Hillshade and Contour Lines

map5topo - Zoom RD 13 - WebMerc 18

Include Part of Bordering Countries

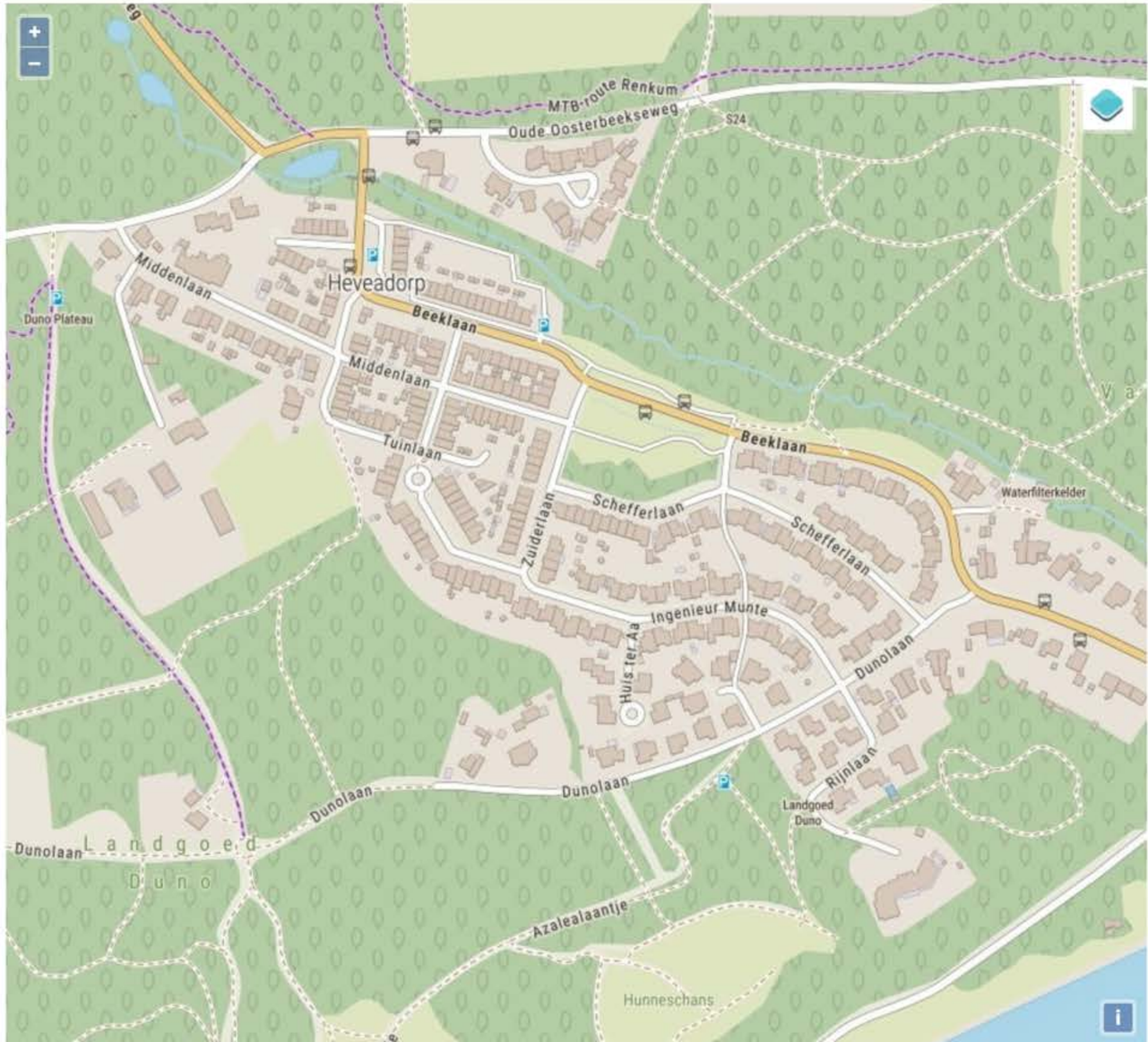


map5topo - Standard and Simple Variants

app.map5.nl/map5topo/sidebyside/#map=12.00/184122.03/442967.18/0/1

Map5 - map5topo zoom=12 - feedback -

Map5 - map5topo simple



What?

Qué?

Què?

map5topo specs

- Four variants (‘Layers’):
  * Standard (detailed) and Simple (background map)
  * Both as ‘greyvalue-maps’
- Tiling: Dutch Tilegrid (EPSG:28992) and Web Mercator (‘OSM/Google Tiles’)
- Standards: WMTS, TMS, XYZ, WMS
- Include part-of bordering countries (DE, BE, FR)
- Open Source project
- ***Data: Best-of OpenStreetMap with Dutch Open Data***

Info: Newsletters (Dutch)- via https://map5.nl/support.html

What?
Qué?
Què?

The Richness of Dutch Open Geospatial Datasets

Available from: pdok.nl

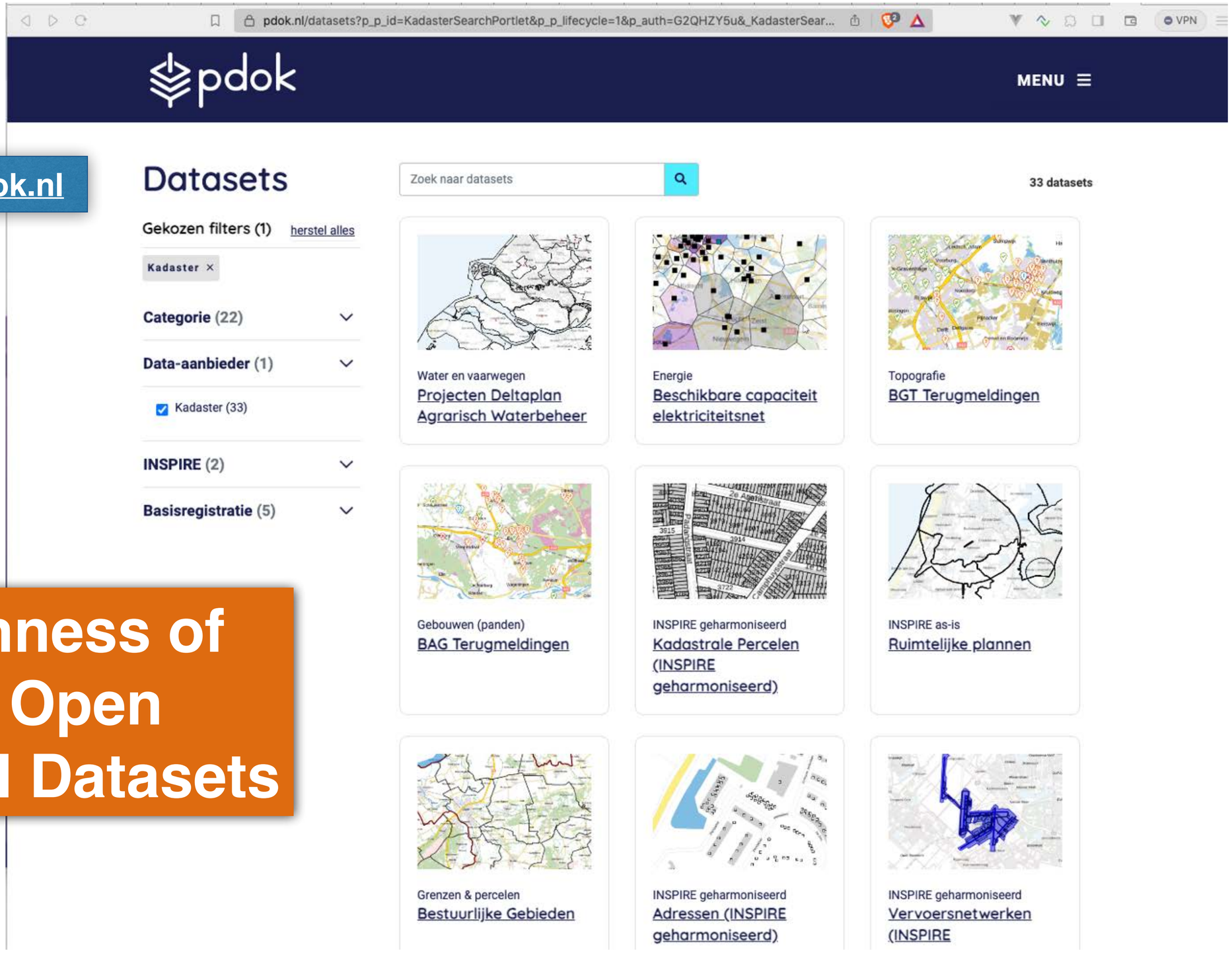
- BAG - Buildings and Addresses
- BRK - Kadastral Parcels
- BRT - Topography - 1:10000 up - TOP10NL, TOP50NL,…
- BGT - Very Detailed Topography
- AHN - Lidar height data - DEM - 5m + **50cm resolutions** for hillshading and contour lines
- and much more:
  NWB (national road network), CBS, NS, …

All Licensed: CC-0 (1.0)

What?
Qué?
Què?

Available from: pdok.nl

The Richness of Dutch Open Geospatial Datasets



The Richness of Dutch Open Geospatial Datasets

available from: pdok.nl

But:
often distributed as complex GML :-(
Hence conversion with nlextract - nlextract.nl

And (IMHO):
- Roads (BRT, BGT, NWB): no uniform classification, no topology, often outdated (trails, rural areas), geographic mismatches, divided over datasets.

- Buildings (BAG): daily updates, only standard ('onroerend') buildings, ("Panden") - no mobile homes, houseboats.

What?
Qué?
Què?

Data - OpenStreetMap - (in The Netherlands)

- Very complete Transport infrastructure and -classification (roads, trails, railways, etc) - AND Import 2007
- Addresses
- BAG Import - Full in 2014 - Now incremental
- Contains Buildings not in BAG (e.g. mobile homes, houseboats)
- Landuse/Landcover: “3DShapes” (TOPVector) import 2010
- Active mapping community, monthly virtual meet

What?
Qué?
Què?

The Challenge!

How are we going to mix all these disparate datasets: Dutch, OpenStreetMap?

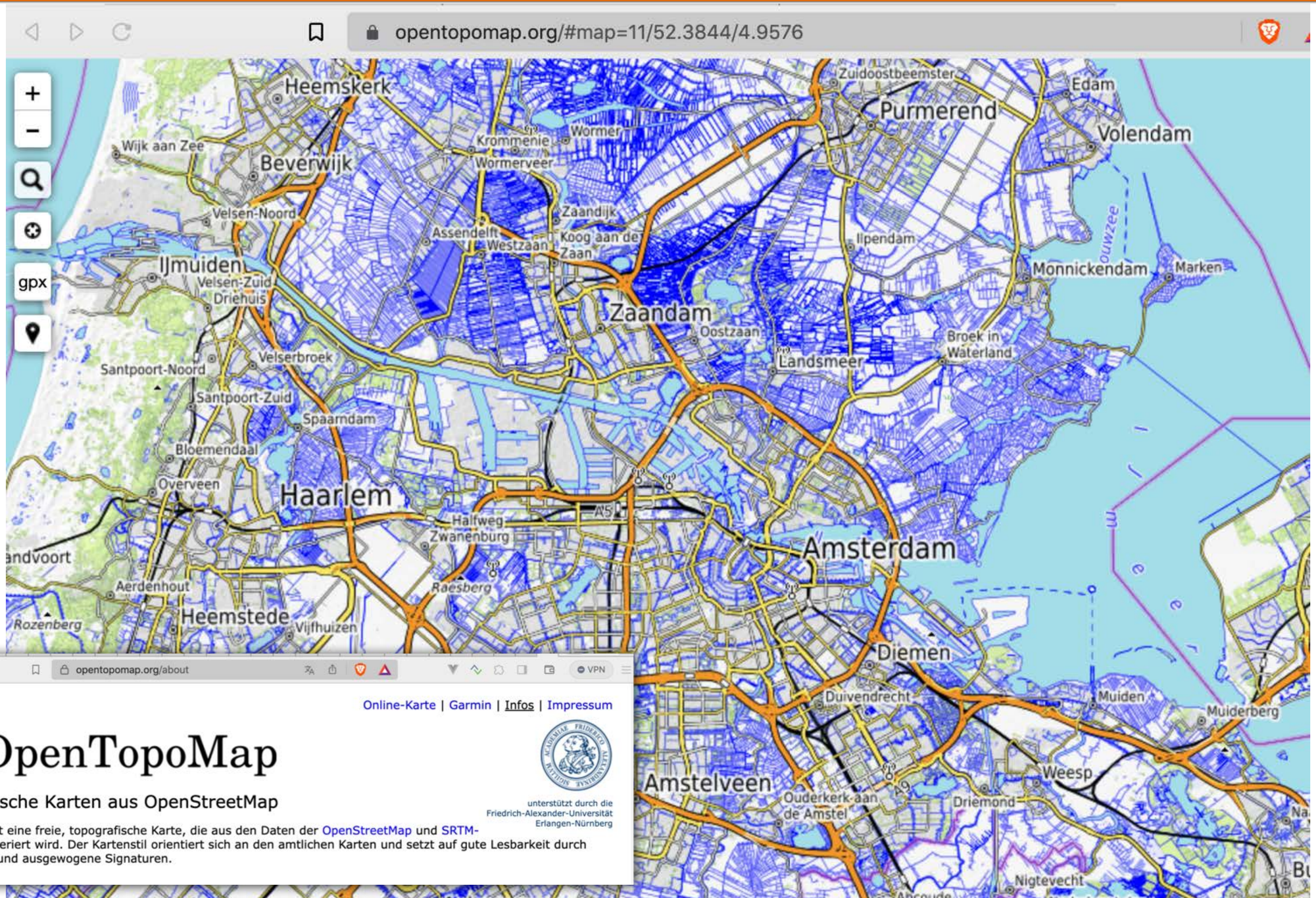
By Feature? - By Layer?
By scale/zoom?
Keep ‘native’ Classifications (data schemas, “tags”)?

How?

Cómo?

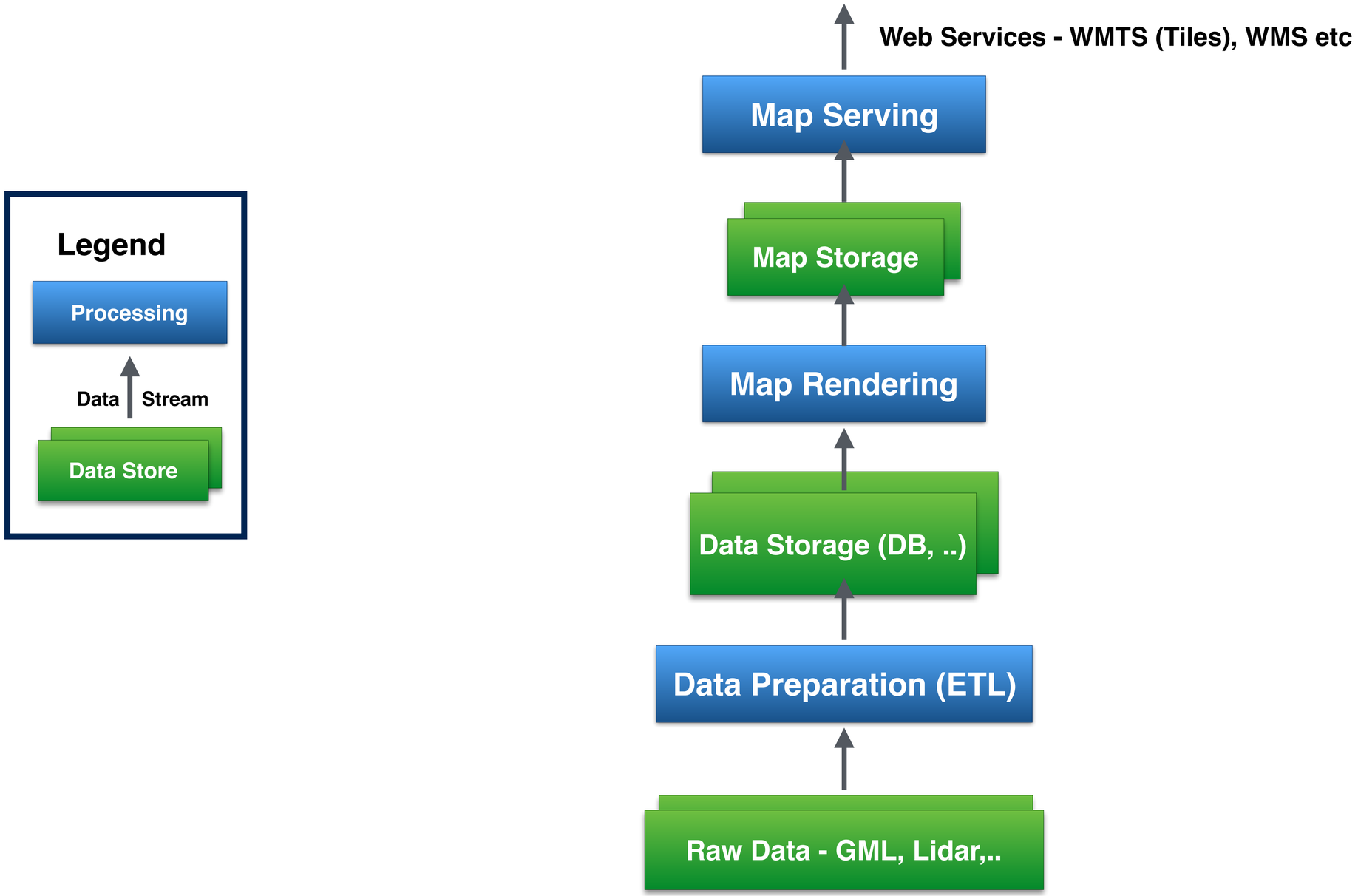
Com?

Starting point: OpenTopoMap FOSS Project - but Zoom into NL - “why mapmaking is often a local matter”



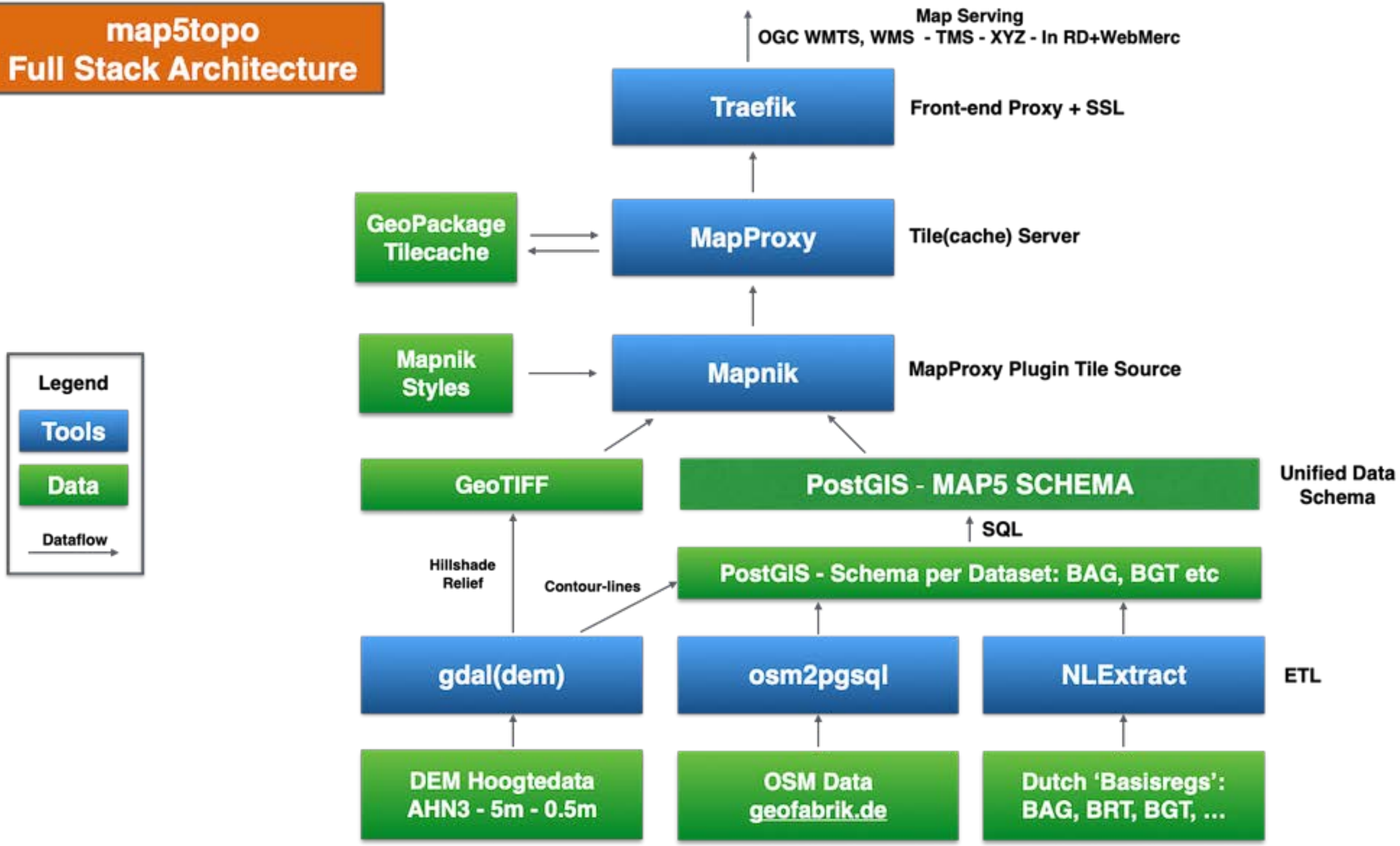
How?
Cómo?
Com?

Architectuur - From Raw Data to Maps - Meta Flow



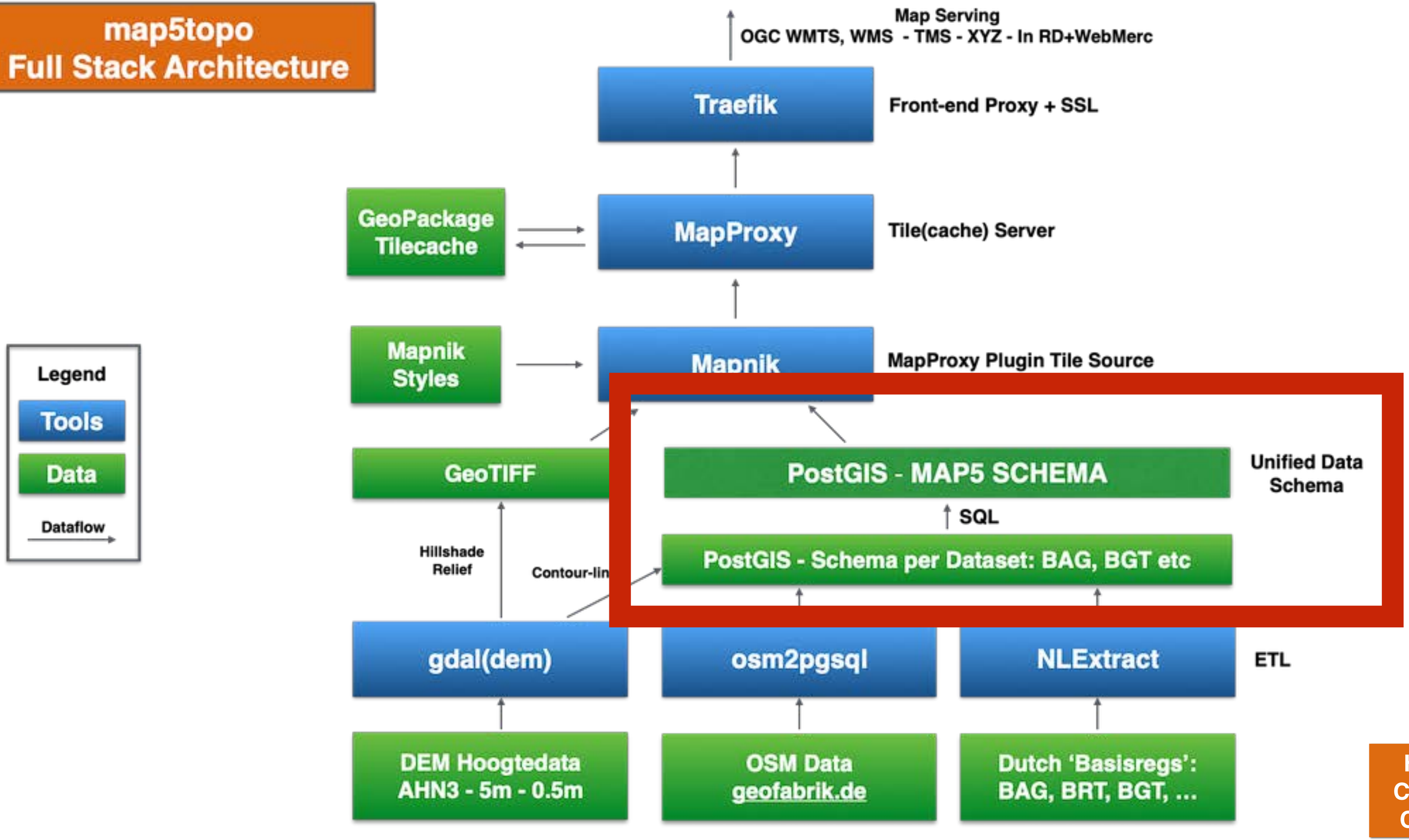
How?
Cómo?
Com?

map5topo
Full Stack Architecture



Hoe?
Cómo?
Com?

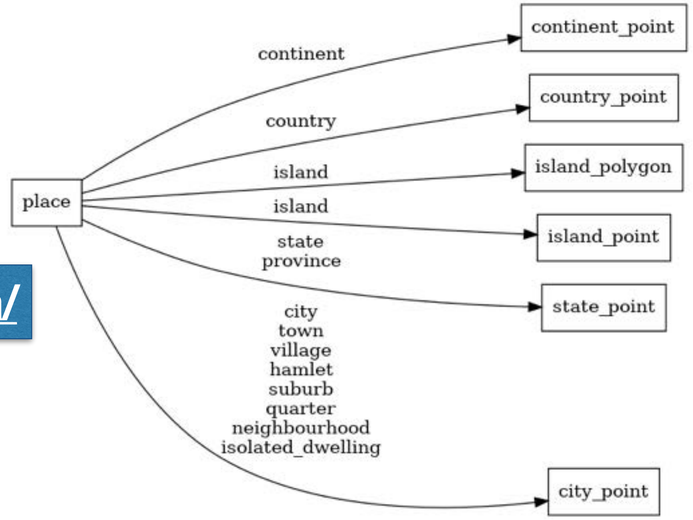
map5topo
Full Stack Architecture



Hoe?
Cómo?
Com?

Unified Data Schema for Maps - State of the Art

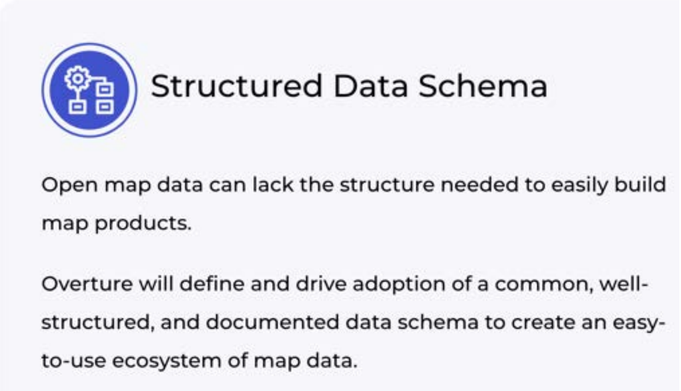
openmaptiles.org/schema/



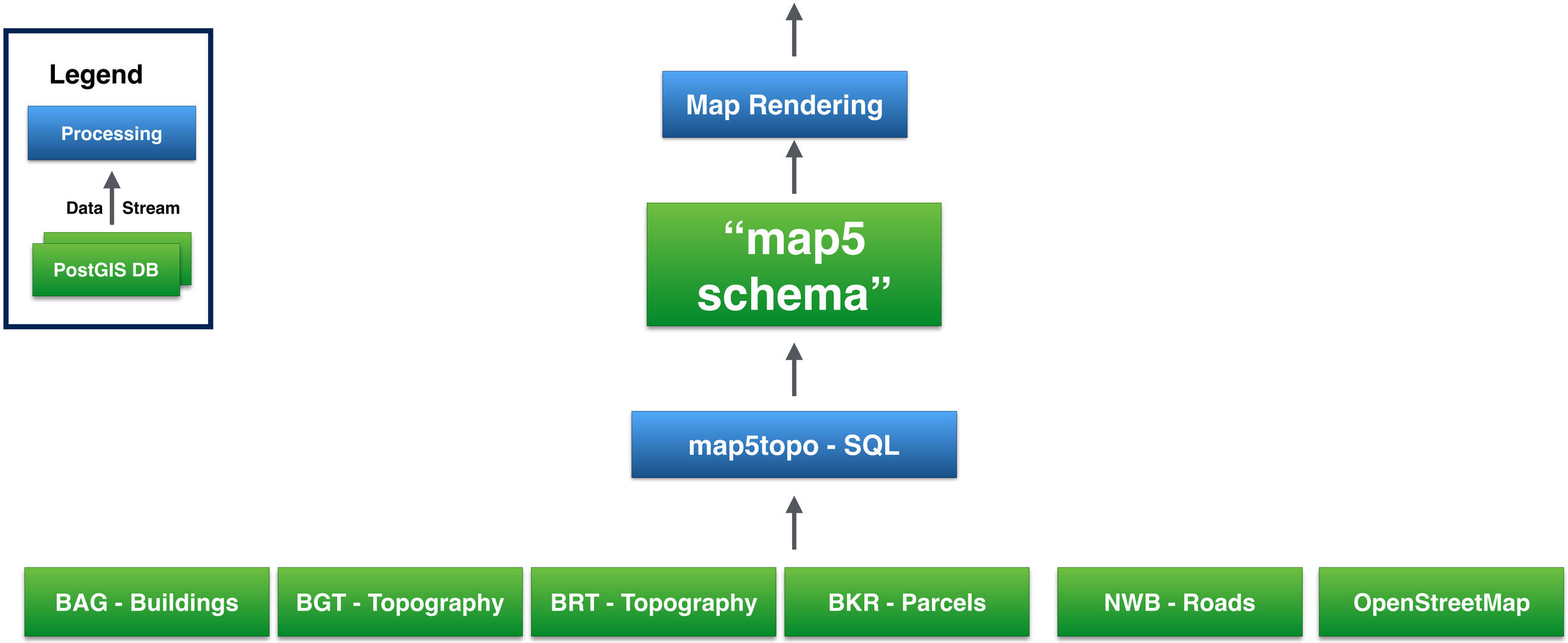
Data Schema and Tooling DIY - Data from OSM and Natural Earth

overturemaps.org/

Data Schema and Open QA-ed data (Parquet!) from OpenStreetMap and other sources (MS Buildings, Meta POIs, …)



Unified PostGIS schema: “map5” - Mixing Data Sources



kadaster

Rijkswaterstaat
Ministry of Infrastructure and the Environment

How?
Cómo?
Com?

Unified PostGIS schema: “map5” - Common table structure

Feature Tables

- sql
  - bag
  - bgt
  - brk
  - brt
  - dem-contours
  - map5
    - tables
      - area-label.sql
      - border.sql
      - contour-line.sql
      - grid.sql
      - housenumber.sql
      - landcover.sql
      - landuse.sql
      - metadata.sql
      - parcel.sql
      - place.sql
      - poi.sql
      - road-area.sql
      - structure.sql
      - water.sql
      - waterway.sql
    - functions.sql
    - schema.sql
  - nwb
  - osm

Common Table Structure

```sql
-- Common Table Structure in pseudo-SQL
TABLE map5.<table_name> (
    -- Hierarchical object classification
    lod1 TEXT,  -- level-of-detail 1 "type"
    lod2 TEXT,  -- level-of-detail 2 "subtype"
    lod3 TEXT,  -- level-of-detail 3 "subsubtype"

    -- z_order of the object relative to others
    z_index INTEGER {-N..M}

    -- The min and max zoomlevel (Dutch RD 1..13)
    -- when to show the object.
    rdz_min INTEGER {1..13},
    rdz_max INTEGER {1..13},

    -- Where the object originates from
    src_schema TEXT, -- source schema
    src_table TEXT,  -- source table
    src_idref TEXT,  -- unique id in source table

    -- Is this object outside of The Netherlands?
    abroad BOOLEAN FALSE,

    -- Geometry of the object in Dutch Projection
    geom GEOMETRY(POINT|LINESTRING|POLYGON, 28992)
);
```

Example Tables

```sql
CREATE TABLE map5.landcover (
    lod1 TEXT,
    lod2 TEXT,
    lod3 TEXT,
    area BIGINT DEFAULT 0,
    z_index INTEGER DEFAULT 0,
    rdz_min INTEGER DEFAULT -1,
    rdz_max INTEGER DEFAULT 13,
    src_schema TEXT,
    src_table TEXT,
    src_idref TEXT,
    abroad BOOLEAN DEFAULT FALSE,
    geom GEOMETRY(POLYGON, 28992)
);

CREATE TABLE map5.water (
    lod1 TEXT,
    lod2 TEXT,
    intermittent INTEGER DEFAULT 0,
    area BIGINT DEFAULT 0,
    z_index INTEGER DEFAULT 0,
    rdz_min INTEGER DEFAULT -1,
    rdz_max INTEGER DEFAULT 13,
    src_schema TEXT,
    src_table TEXT,
    src_idref TEXT,
    abroad BOOLEAN DEFAULT FALSE,
    geom GEOMETRY(MULTIPOLYGON, 28992)
);

CREATE TABLE map5.poi (
    lod1 TEXT,
    lod2 TEXT,
    lod3 TEXT,
    text1 TEXT DEFAULT '',
    rank INTEGER DEFAULT 0,
    rdz_min INTEGER DEFAULT -1, -- minzoom in RD
    rdz_max INTEGER DEFAULT 13, -- maxzoom in RD
    src_schema TEXT,
    src_table TEXT,
    src_idref TEXT,
    abroad BOOLEAN DEFAULT FALSE,
    geom GEOMETRY(POINT, 28992)
```

map5topo - Unified PostGIS schema

ETL with SQL - Hierarchical Classification through “Levels of Detail”: lod1, lod2, lod3

Example: Landcover

```sql
CREATE TABLE map5.landcover (
    lod1 TEXT,
    lod2 TEXT,
    lod3 TEXT,
    area BIGINT DEFAULT 0,
    z_index INTEGER DEFAULT 0,
    rdz_min INTEGER DEFAULT -1,
    rdz_max INTEGER DEFAULT 13,
    src_schema TEXT,
    src_table TEXT,
    src_idref TEXT,
    abroad BOOLEAN DEFAULT FALSE,
    geom GEOMETRY(POLYGON, 28992)
);
```

```sql
-- lod1          lod2          lod2 (Dutch)
-- ------------------------------------
-- agriculture   arable        bouw/akkerland
--               orchard       boomgaard
--               pastoral      grasland agrarisch
-- trees         deciduous     loofbos
--               mixed         gemengd bos
--               pine          naaldbos
-- greenery      grass         grasland
--               scrub         allerlei soorten groen (greenery), be
-- heath         heath         heide
-- wetland       reed          rietland - kwelder - slik
--               tidalflat     wad, wadden
-- sand          sand          duin - stuifzand
-- bare          yard          erf
--               bare          kaal, alles wat niet-erf of niet-urba
--               urban         bebouwd gebied, staden etc.

-- lod 3 can add 'swamp'  for any of the above.

-- DATASET PER RD ZOOM
-- BGT       13
-- TOP10NL   10-12
-- TOP50     6-9
-- OSM       0-5 and 6-13 Abroad
```

```sql
BEGIN;
INSERT INTO map5.landcover
    SELECT
        CASE
          WHEN s.typelandgebruik IN ('akkerland', 'boomgaard', 'boomkwekerij', 'fruitkwekerij')
            THEN 'agriculture'
          WHEN s.typelandgebruik IN ('bos: gemengd bos', 'bos: loofbos', 'bos: naaldbos', 'populieren')
            THEN 'trees'
          WHEN s.typelandgebruik IN ('grasland', 'dodenakker')
            THEN 'greenery'
          WHEN s.typelandgebruik = 'heide'
            THEN 'heath'
          WHEN s.typelandgebruik = 'bos: griend'
            THEN 'wetland'
          WHEN s.typelandgebruik IN ('duin', 'zand')
            THEN 'sand'
          WHEN s.typelandgebruik IN ('aanlegsteiger', 'basaltblokken, steenglooiing', 'bebouwd gebied', 'braakliggend', 'spoorbaanlichaam
           THEN 'bare'
          ELSE
              'bare'
        END  AS lod1,
        CASE
          WHEN s.typelandgebruik IN ('akkerland', 'boomkwekerij', 'fruitkwekerij')
            THEN 'arable'
          WHEN s.typelandgebruik  = 'boomgaard'
            THEN 'orchard'
          WHEN s.typelandgebruik IN ('bos: loofbos', 'populieren')
            THEN 'deciduous'
          WHEN s.typelandgebruik IN ('bos: gemengd bos')
            THEN 'mixed'
          WHEN s.typelandgebruik = 'bos: naaldbos'
            THEN 'pine'
          WHEN s.typelandgebruik = 'grasland'
            THEN 'grass'
          WHEN s.typelandgebruik = 'dodenakker'
            THEN 'scrub'
          WHEN s.typelandgebruik  = 'heide'
            THEN 'heath'
          WHEN s.typelandgebruik = 'bos: griend'
            THEN 'reed'
          WHEN s.typelandgebruik IN ('duin', 'zand')
            THEN 'sand'
          WHEN s.typelandgebruik = 'bebouwd gebied'
           THEN 'urban'
          ELSE
              'bare'
        END  AS lod2,

        s.typelandgebruik AS lod3,
        ST_Area(s.geometrie_vlak)   AS area,
        0   AS z_index,
        -- Show between these RD zoomlevels
        6                           AS rdz_min,
        9                           AS rdz_max,
        'top50nl'                   AS src_schema,
        'terrein_vlak'  AS src_table,
        s."lokaalid"                AS src_idref,
        FALSE                 AS abroad,
        (ST_Dump(ST_ForcePolygonCW(ST_CollectionExtract(s.geometrie_vlak, 3)))).geom::geometry(POLYGON, 28992) AS geom
    FROM
    top50nl."terrein_vlak" AS s;
COMMIT;
```

map5topo - Unified PostGIS schema: “map5” - metadata table

```sql
-- Metadata and statistics to be extracted from all map5 tables
-- useful for analysis and documentation generation

-- Create table with metadata/stats of all records from all other tables in map5 schema.
DROP TABLE IF EXISTS map5.metadata CASCADE;

CREATE TABLE map5.metadata
(
    table_name TEXT,          -- map5 table name
    rdzoom     INT,           -- RD zoomlevel
    wmzoom     INT,           -- Webmerc zoomlevel
    src_schema TEXT,          -- source schema of the record
    src_table  TEXT,          -- source table in source schema of the record
    abroad     BOOLEAN,       -- is the record abroad (outside NL)?
    records    INT,           -- number of records from source table
    created    TEXT DEFAULT to_char(current_timestamp, 'IYYY-Mon-DD-HH24:MI:SS'),
    gid SERIAL PRIMARY KEY
);


-- add key and indexes
-- ALTER TABLE map5.metadata ADD COLUMN gid SERIAL PRIMARY KEY;
CREATE INDEX map5_metadata_table_name_idx ON map5.metadata USING btree (table_name);

-- Function to extract meta data and stats from a map5 table.
DROP FUNCTION IF EXISTS map5.create_table_metadata(p_table_name TEXT);
CREATE OR REPLACE FUNCTION map5.create_table_metadata(p_table_name TEXT)
RETURNS TABLE (table_name TEXT, rdzoom INT, wmzoom INT, src_schema TEXT, src_table TEXT, abroad BOOLEAN, records INT) AS $$
DECLARE
    i INT;
    result_record RECORD;
BEGIN
    FOR i IN 0..13 LOOP
        FOR result_record IN
            EXECUTE format('
                SELECT %1$L AS rdzoom, src_schema, src_table, abroad, count(src_schema) AS records
                FROM %2s
                WHERE %1$L BETWEEN rdz_min AND rdz_max
                GROUP BY rdzoom, src_schema, src_table, abroad', i, p_table_name)
        LOOP
            -- Return the result for each iteration
            table_name := p_table_name;
            rdzoom := result_record.rdzoom;
            wmzoom := rdzoom + 5;
            src_schema := result_record.src_schema;
            src_table := result_record.src_table;
            abroad := result_record.abroad;
            records := result_record.records;
            RETURN NEXT;
        END LOOP;
    END LOOP;

    RETURN;
END;
$$ LANGUAGE plpgsql;

-- Example usage
-- SELECT * FROM map5.create_table_metadata('map5.landcover');

-- Example usage
-- DELETE FROM map5.metadata WHERE table_name = 'map5.landcover';
-- INSERT INTO map5.metadata
--     SELECT * FROM map5.create_table_metadata('map5.landcover');
```

map5topo - Unified PostGIS schema: “map5” - metadata table

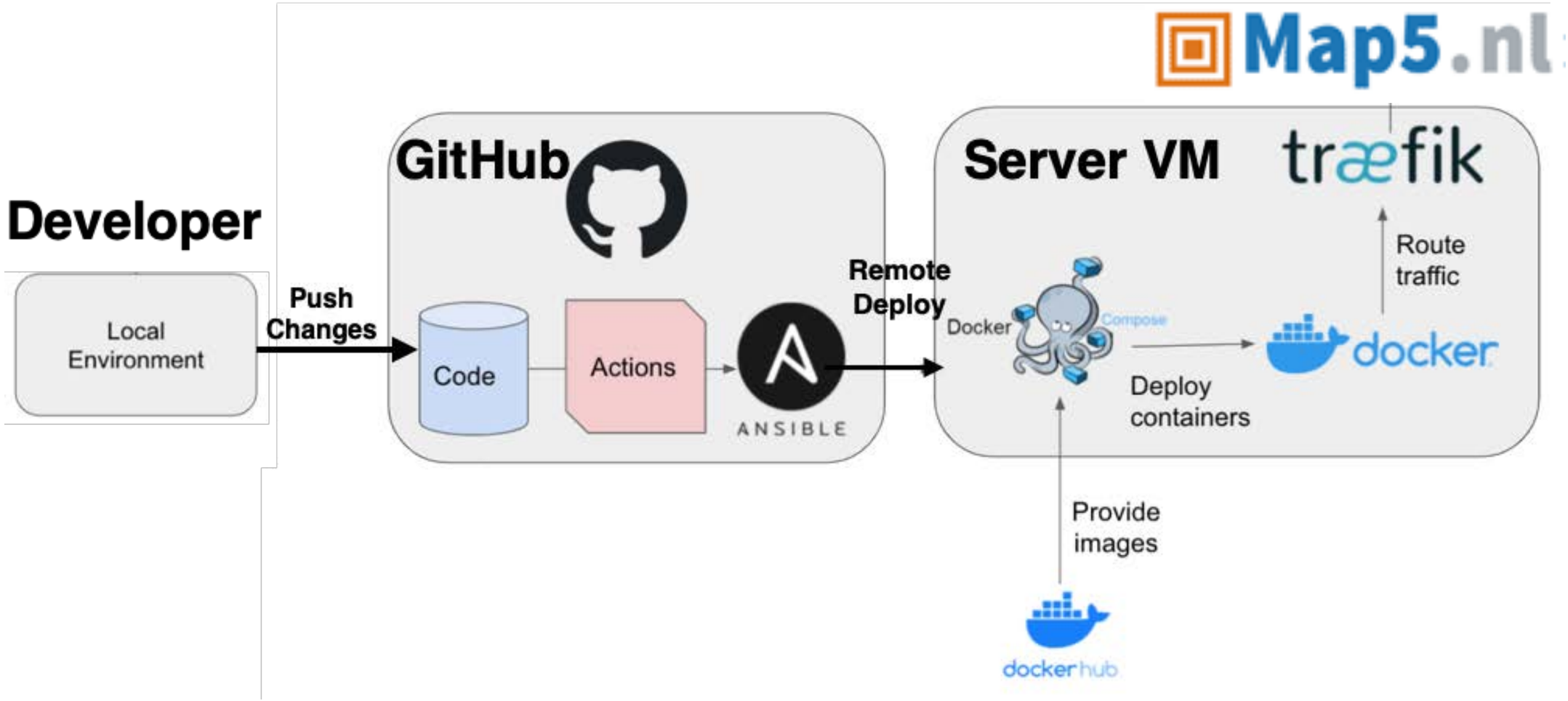
Example:
Data
at zoom RD 12
(Webmerc 17)

```
1  SELECT * FROM map5.metadata where abroad is false and rdzoom = 12
```

Data Output Messages Notifications

	table_name text	rdzoom integer	wmzoom integer	src_schema text	src_table text	abroad boolean	records integer	created text
1	map5.area_label	12	17	top10nl	geografischgebied	false	15865	2023-Jul-16-22:38:14
2	map5.area_label	12	17	osmnl	planet_osm_polygon	false	74761	2023-Jul-16-22:38:14
3	map5.area_label	12	17	osmnl	planet_osm_point	false	90254	2023-Jul-16-22:38:14
4	map5.border	12	17	osmnl	planet_osm_polygon	false	357	2023-Jul-16-22:38:29
5	map5.contour_line	12	17	dem	contours	false	112187	2023-Jul-16-22:38:41
6	map5.landuse	12	17	osmnl	planet_osm_polygon	false	7408	2023-Jul-16-23:06:55
7	map5.parcel	12	17	brk	kadastralegrens	false	7871858	2023-Jul-16-23:11:26
8	map5.place	12	17	osmnl	planet_osm_point	false	9602	2023-Jul-16-23:12:02
9	map5.poi	12	17	osmnl	planet_osm_polygon	false	8347	2023-Jul-16-23:15:45
10	map5.poi	12	17	osmnl	planet_osm_point	false	585496	2023-Jul-16-23:15:45
11	map5.poi	12	17	nwb	hectoborden	false	159143	2023-Jul-16-23:15:45
12	map5.poi	12	17	top10nl	hoogte_punt	false	78901	2023-Jul-16-23:15:45
13	map5.road_area	12	17	osmnl	planet_osm_polygon	false	8542	2023-Jul-16-23:22:39
14	map5.structure	12	17	bgt_lean	kunstwerkdeel_vlak	false	182473	2023-Jul-16-23:34:44
15	map5.structure	12	17	osmnl	planet_osm_polygon	false	38548	2023-Jul-16-23:34:44
16	map5.structure	12	17	bag	pand	false	10874597	2023-Jul-16-23:34:44
17	map5.structure	12	17	bgt_lean	overigbouwwerk_multivlak	false	1066015	2023-Jul-16-23:34:44
18	map5.structure	12	17	bgt_lean	gebouwinstallatie_vlak	false	1328327	2023-Jul-16-23:34:44
19	map5.water	12	17	osmnl	sea_polygons	false	4	2023-Jul-16-23:41:51
20	map5.water	12	17	top10nl	waterdeel_vlak	false	295180	2023-Jul-16-23:41:51
21	map5.waterway	12	17	top10nl	waterdeel_lijn	false	2867200	2023-Jul-16-23:44:07
22	map5.landcover	12	17	top10nl	terrein_vlak	false	2194227	2023-Jul-18-13:58:38
23	map5.landcover	12	17	osmnl	planet_osm_polygon	false	1694	2023-Jul-18-13:58:38

Automation - GitOps Workflow - CI/CD



How?
Cómo?
Com?

Niene Boeijen - Map Styling

How?
Cómo?
Com?

Niene Boeijen - My Personal We

https://nieneb.nl

NIENE BOEIJEN

- > Online Projects
- > Offline Projects
- > Talks
- > Workshops
- > About me

I am a freelance full stack web map developer. Everything I make is with a creative focus, from geo-data analysis to cartographic visualizations on the web. Check my online projects for my work online.
Next to building things I love to talk and teach about web GIS. Check my workshops and presentations for past and future work and reach out to me if you would like me speak!

In my free time I am always creating things. As artist and tinkerer. Check my offline projects for everything tangible I

DATAVOORZIENING ENERGIETRANSITIE

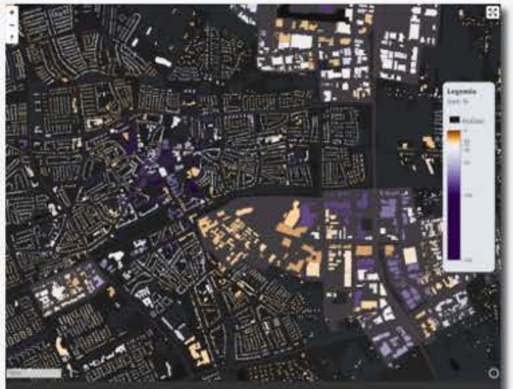
De Datavoorziening Energietransitie Gebouwde Omgeving (DEGO) helpt gemeenten bij het werken met de data die nodig zijn voor het maken van o.a een Transitievisie Warmte. Een gebruiksvriendelijke viewer, die helpt bij het expoloreren van de vele datasets die beschikbaar zijn.

DATAVOORZIENING WIJKPASPOORT

De Datavoorziening Wijkpaspoort Warmtetransitie is tot stand gekomen door een samenwerking tussen het Kadaster en VNG. Het Kadaster en VNG zetten zich beide in om gemeenten te ondersteunen bij het datagedreven werken aan de energietransitie in de gebouwde omgeving

LISTEN TO THE MAP

Simply listen to the data



BLOG: R STATISTICS > D3.JS COLOR SCALES > MAPBOXGL.JS

For a assignment of the VNG my

How?
Cómo?
Com?

map5topo - styling - by @bniene

Achtergrond

water, vaarroutes & labels

Landuse & outlines

Heide

Zand

Gebouwen & residential

Contourlijnen

Percelen

Gebouwen & adressen

Spoorlijnen, tekst labels, icoontjes

Wegen

A1

N22

Roboto Condensed
Christian Robertson
6 styles

Whereas recognition of the inherent dignity

Lato
Łukasz Dziedzic
10 styles

Whereas recognition of the inherent dignity

Roboto Slab
Christian Robertson
Variable

Whereas recognition of the inherent dignity

Mukta
Ek Type
7 styles

Whereas recognition of the inherent dignity

Niene Boeijen - Map Styling

How?
Cómo?
Com?

Styling with Mapnik - Layers

```
        &postgis-settings;
    </Datasource>
</Layer>

<Layer name="parcels">
    <StyleName>parcels</StyleName>
    <Datasource>
        <Parameter name="table">
            (SELECT geom,rdz_min,rdz_max FROM map5.parcel
             WHERE (rdz(!scale_denominator!)) BETWEEN rdz_min AND rdz_max) AS parcels
        </Parameter>
        &postgis-settings;
    </Datasource>
</Layer>

<Layer name="water">
    <StyleName>water</StyleName>
    <Datasource>
        <Parameter name="table">
            (SELECT geom,lod1,lod2,intermittent,area,rdz_min,rdz_max FROM map5.water
             WHERE (rdz(!scale_denominator!)) BETWEEN rdz_min AND rdz_max) AS water
        </Parameter>
        &postgis-settings;
    </Datasource>
</Layer>

<Layer name="waterway">
    <StyleName>waterway</StyleName>
    <Datasource>
        <Parameter name="table">
            (SELECT geom,lod1,brunnel,intermittent,length,rdz_min,rdz_max FROM map5.waterway
             WHERE (rdz(!scale_denominator!)) BETWEEN rdz_min AND rdz_max) AS waterway
        </Parameter>
        &postgis-settings;
    </Datasource>
</Layer>

<Layer name="landcover-over-water">
    <StyleName>landcover-over-water</StyleName>
    <Datasource>
```

Style
to be applied
to the Layer

Every Layer is a
PostGIS Query

How?
Cómo?
Com?

Styling with Mapnik - Styles

Style file per Layer

```
<!-- less then -->
<Rule>
    &maxscale_zoom13_rd8;
    &minscale_zoom13_rd8;
    <Filter>[area] < 50000 and [intermittent] = 0</Filter>
    <LineSymbolizer stroke="&blue_dark;" stroke-width="0.5" stroke-opacity="0.5"/>
</Rule>

<Rule>
    &maxscale_zoom14_rd9;
    &minscale_zoom17_rd12;
    <Filter>[intermittent] = 0</Filter>
    <PolygonSymbolizer fill="&blue_1;"/>
    <LineSymbolizer stroke="&blue_dark;" stroke-width="1"/>
</Rule>

<Rule>
    &maxscale_zoom18_rd13;
    &minscale_zoom18_rd13;
    <Filter>[intermittent] = 0</Filter>
    <PolygonSymbolizer fill="&blue_1;"/>
    <LineSymbolizer stroke="&blue_dark;" stroke-wid
</Rule>

<!-- intermittent -->
<!-- The intermittent value (0|1) is used to indicate that a waterway or body of water does not permanently contain water. -->

<Rule>
    &maxscale_zoom9_rd4;
    &minscale_zoom11_rd6;
    <Filter>[intermittent] = 1</Filter>
    <PolygonSymbolizer fill="&blue_dark_2;" fill-opacity="0.2" />
    <PolygonPatternSymbolizer file="symbols-map5/water-pattern-lowz.png" opacity="0.7"/>
</Rule>

<Rule>
    &maxscale_zoom12_rd7;
    &minscale_zoom18_rd13;
    <Filter>[intermittent] = 1</Filter>
    <PolygonSymbolizer fill="&blue_dark_2;" fill-opacity="0.2" />
    <PolygonPatternSymbolizer file="symbols-map5/water-pattern2.png" opacity="0.7"/>
</Rule>

<!-- swimming pool -->
<Rule>
    &maxscale_zoom13_rd8;
    &minscale_zoom18_rd13;
    <Filter>[lod1] = 'swimming_pool'</Filter>
    <PolygonSymbolizer fill="&blue_1;"/>
    <LineSymbolizer stroke="&blue_dark;" stroke-width="1.1"/>
```

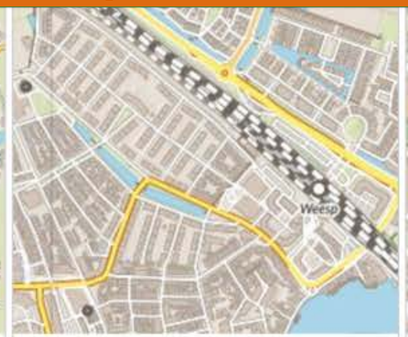
Example Style
Rule:
At zoom 4-6 (WM 9-11)
Color and pattern to be applied
for water with tides
(intermittent = true)
“wadden”

How?
Cómo?
Com?

map5topo - WIP Sept 11, 2023 - Immediate Mapnik Output on Style Change

resident-8

resident-9



resident-10

resident-11

resident-12

resident-13

roads-8

roads-9

roads-10

roads-11

roads-12

roads-13

rural-8

rural-9

rural-10

rural-11

rural-12

rural-13

How?
Cómo?
Com?

pg_featureserv - remote PostGIS data in QGIS as OGC API Features

"A lightweight RESTful geospatial feature server for PostGIS, ….
…supports the OGC API - Features REST API standard."
https://access.crunchydata.com/documentation/pg_featureserv/latest/

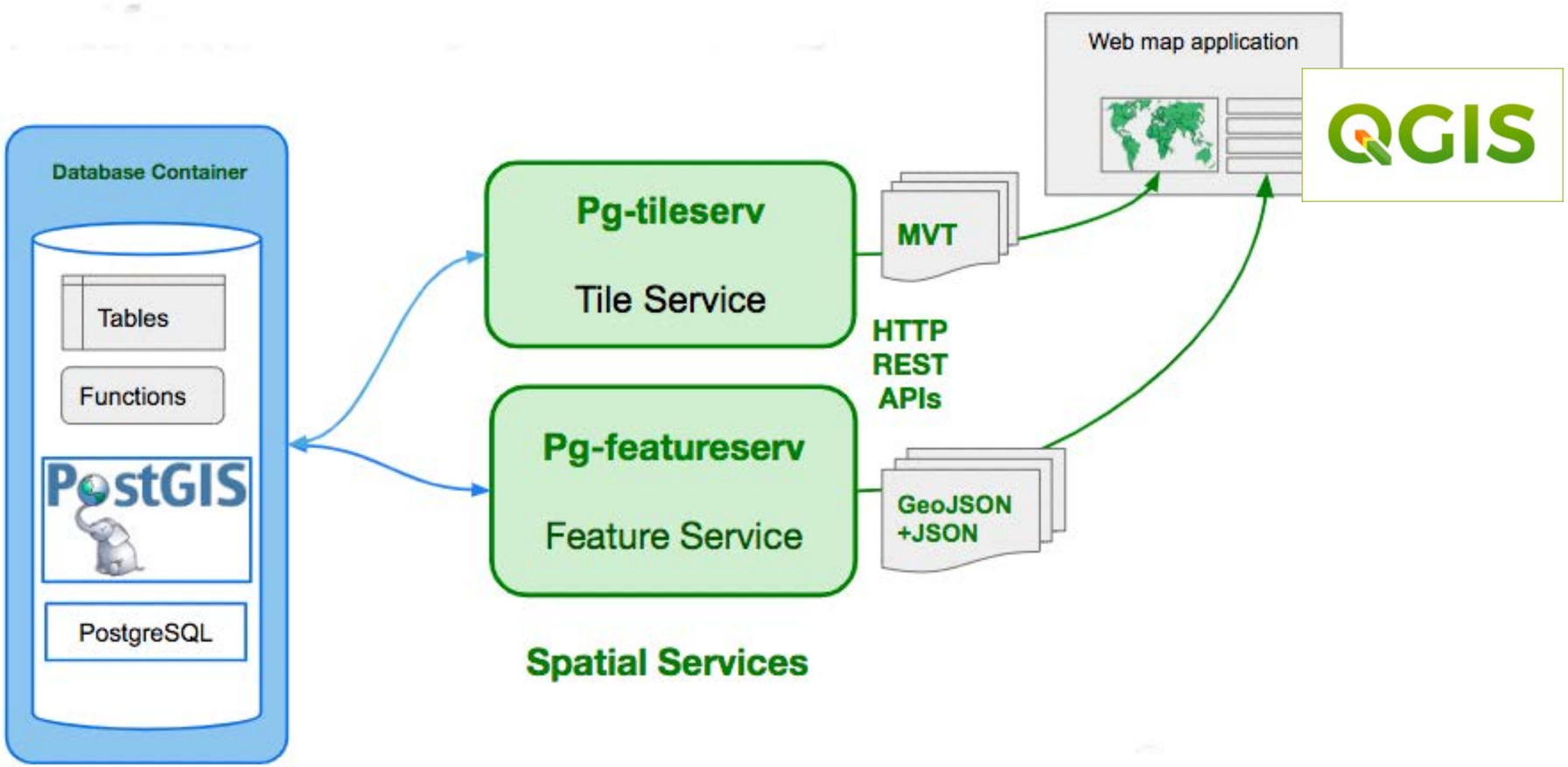
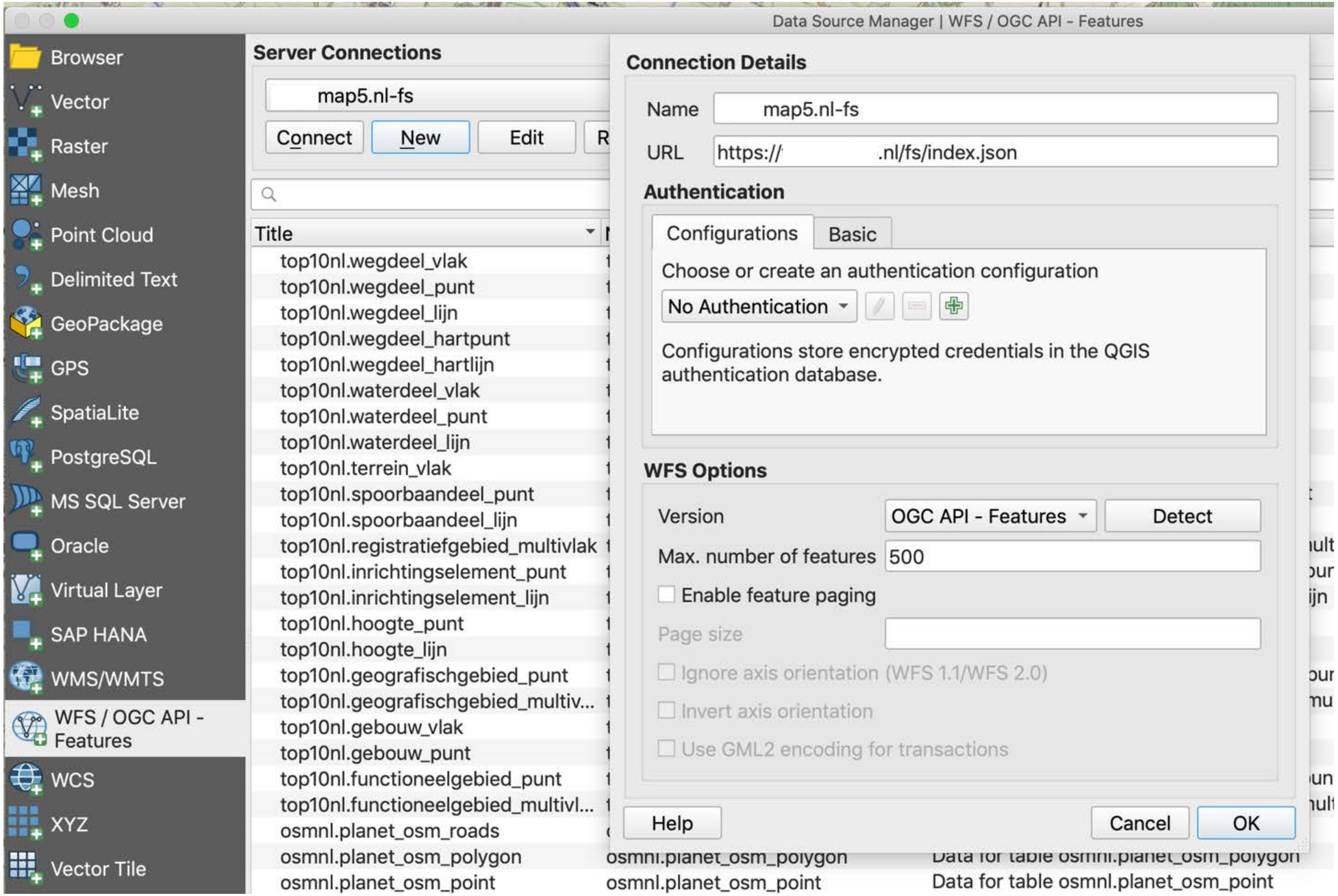
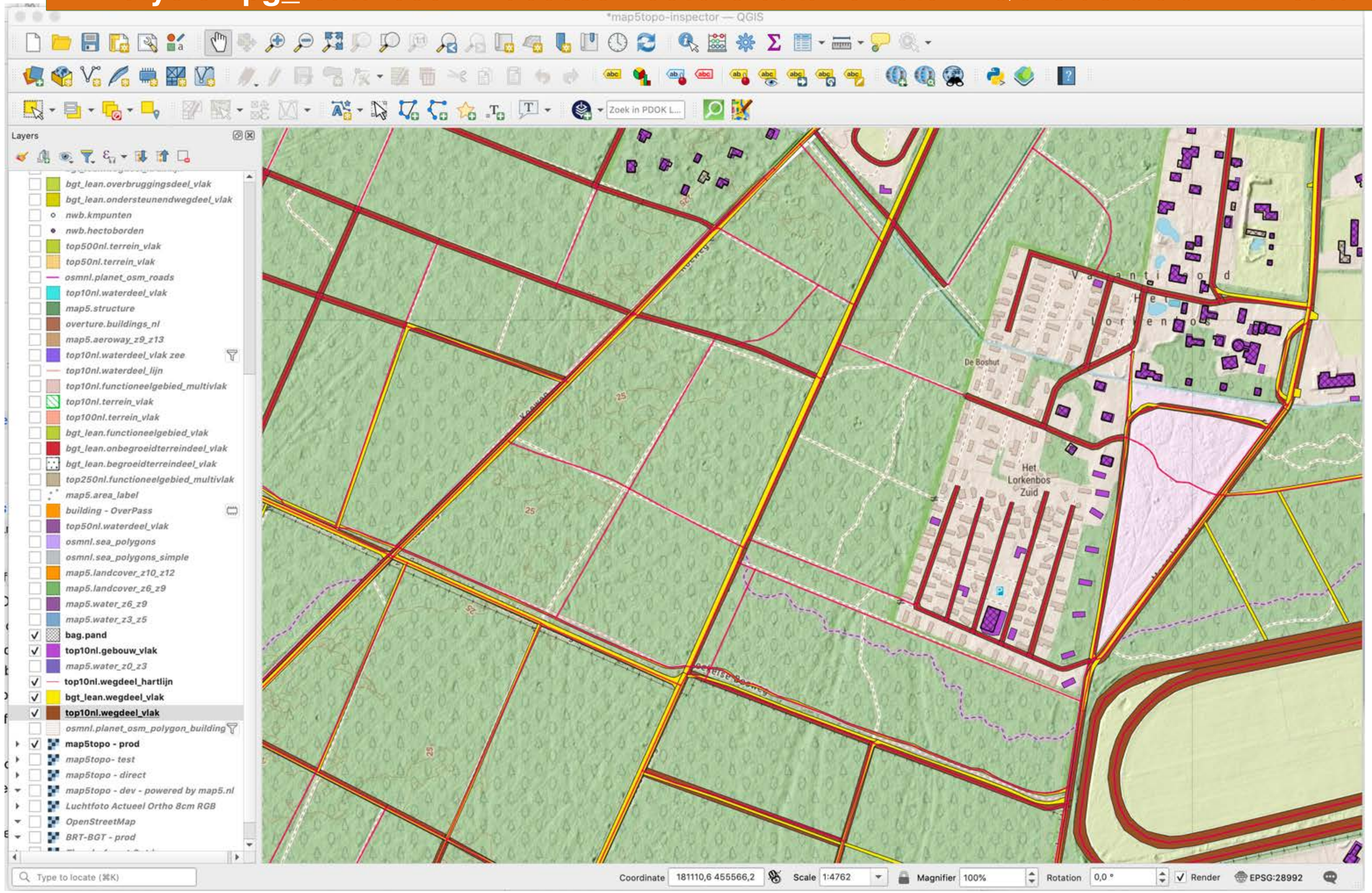


Image from: https://access.crunchydata.com/documentation/pg_featureserv/1.2.0/introduction/architecture/

Analysis - pg_featureserv - access PostGIS data remote in QGIS as OGC API Features



Analysis - pg_featureserv - access PostGIS data remote in QGIS as OGC API Features



TODO and Plans

- Establish Open Source Project - Want to join?
- Migration Mapnik XML to CartoCSS and Kosmtik
- Vector Tiles
- More automation (ETL, rendering, QA,…)

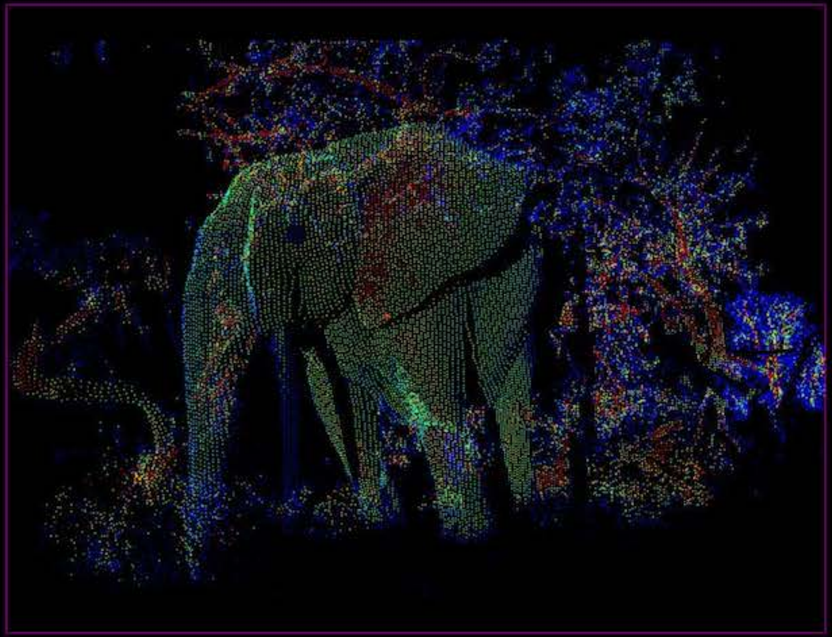
postgisdag.nl

Post GIS day!

16 November 2023

Location Hogeschool Utrecht

Padualaan 99



Program *

09:30-10:00 welcome
10:00-12:00 unconference
12:00-13:00 lunch
13:00-16:00 unconference
16:00-17:00 drinks

Prelimenary program

Target audience:

All PostGIS users
from beginners to experts!

More info &
Sign yourself up : here

Subject suggestions:

- Make files for database management
- PostGIS for beginners
- PostGIS & Qgis server
- ...
- Your topic here ?

Suggested topics

Questions, contributing, Sign up?

All help is welcome! Let us know if and how you would like to contribute
Mail to OsgeoNL Bestuur
Sing yourself up : here

Thanks!
Questions?

Newsletters: https://map5.nl/contact.html
Documentation: https://map5topo.nl
Viewers: https://app.map5.nl/map5topo/
Social: https://mapstodon.space/@map5nl
Subscriptions: https://map5.nl - OSM Mappers reduced pricing