Agile & Open Development

The Datapunt Amsterdam Infrastructure enables us to quickly solve real problems and collaborate
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Software in the city
Datapunt: Connecting City Data

- Development team
- Tasked to connect city data in Amsterdam
  - Connect internal and external data
  - With internal users, partners and the public
  - To who wants it and is allowed to
- Mix of own and ‘client’ work
Datapunt: Team

- An Agile Scrum workflow enabling iterative development
- Using DevOps and Continuous Delivery to accelerate development
- Team includes Backenders, Frontenders, DevOpsers, Supporters, Privacy experts, Designers, Architects, Product Owners

1. User needs
2. Building in one or more sprints of two weeks
3. Usable solutions

Usable solutions
We have to use Open Source
City Data APIs

- APIs for Maps, Statistics, 360° Imagery, Addresses, Company information, Historical data, etc, etc, etc
- REST APIs, WMS/WFS services and map tiles
- Access control for restricted data
- All with OpenAPI documentation
Data products

Open data portal for existing open data

- Frontends to the City Data APIs
- For the public, partners and internal users (progressive disclosure)
We have to use and contribute to Open Source
«Oh, we can develop apps easily!»
FIXXX Applications

- Solutions to actual problems inside the organisation
- Often connected to the data but not always
- Deals with similar progressive disclosure issues
- Apps for the fire department, tour bus operators, collaborative public safety and more
My Amsterdam

A citizen self-service portal

- One place where a citizen can see what is happening all across the City organisation with their cases
- Aggregating and showing data on cases
- Leaving business logic with the departments
- A new UI for citizens to deal with the City
Code == Code
We have to use, contribute to and develop Open Source
Why Open Source

- Collaboration
- Security
- Transparency
- Support, reliability and maintainability
- Agility
- Reusability
- Attractiveness

amsterdam.github.io
github.com/amsterdam

All of our code is on GitHub

- Models
- City Data Portal
- Data pipelines
- APIs
- Infrastructure
Just started

- Comprehensive showcase of products
- All the guides and policy we have or know on Open Source
# Projects

## City of Amsterdam - Open Source

### Authz

An OAuth 2.0 compatible authorization service written in Go.

This service:
- Implements the Implicit flow as described in [RFC6749 section 4.2](https://tools.ietf.org/html/rfc6749#section-4.2)
- Uses JSON Web Keys [RFC7518](https://tools.ietf.org/html/rfc7518) for key management
- Creates JSON Web Tokens [RFC7519](https://tools.ietf.org/html/rfc7519) using HMAC or ECDSA (HS256, HS384, HS512, ES256, ES384, ES512)
- Provides interfaces for Identity providers, state storage (with implementations for single node in-memory storage and Redis), authorization providers (to map users to scopes) and client registrars.

For more information on how to use, check out the [GitHub repository](https://github.com) or the [Documentation on GoDoc](https://godoc.org).

### Atlas

The interface for all APIs - Open Data and internal – offered by Amsterdam City Data.

Atlas is deployed at [data.amsterdam.nl](http://data.amsterdam.nl).

The source code for Atlas is at the GitHub repository: [Amsterdam/atlas](https://github.com/Amsterdam/atlas)

#### Features

A big map with all the API data on it

### City of Amsterdam - Open Source

### De Stem Van

The participation platform 'De Stem Van' was originally developed to give the citizens of the Stadsdeel West borough of Amsterdam the ability to put items on the political agenda.

### City of Amsterdam - Open Source

### Open Panorama

An end to end solution for processing, normalization, anonymization and serving 360° street view panoramas. From raw files to API.

At the City of Amsterdam, our civil servants need access to up to date street view images to do their job. We drive through the city multiple times per year to get the latest images. We've built Open Panorama to turn the photos we take into a server that serves 360° panorama images over the web.

You can see the 360° panorama images of the streets of Amsterdam on [data.amsterdam.nl](http://data.amsterdam.nl).

### Reusability

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<tr>
<th>Authz</th>
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<th>Open Panorama</th>
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An Open Source Ecosystem for cities
Thanks

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