

Linked Data Event Streams for planned mobility hindrance information

FOSS4G 2022 – Oliver May



DIGITAAL
VLAANDEREN



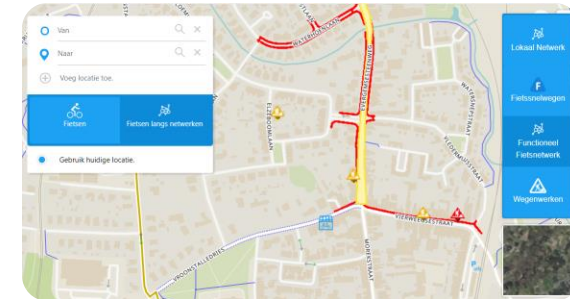
Vlaamse
overheid



Background

GIPOD & event sourcing

Generiek Informatieplatform Openbaar Domein



Planned Mobility Hindrance

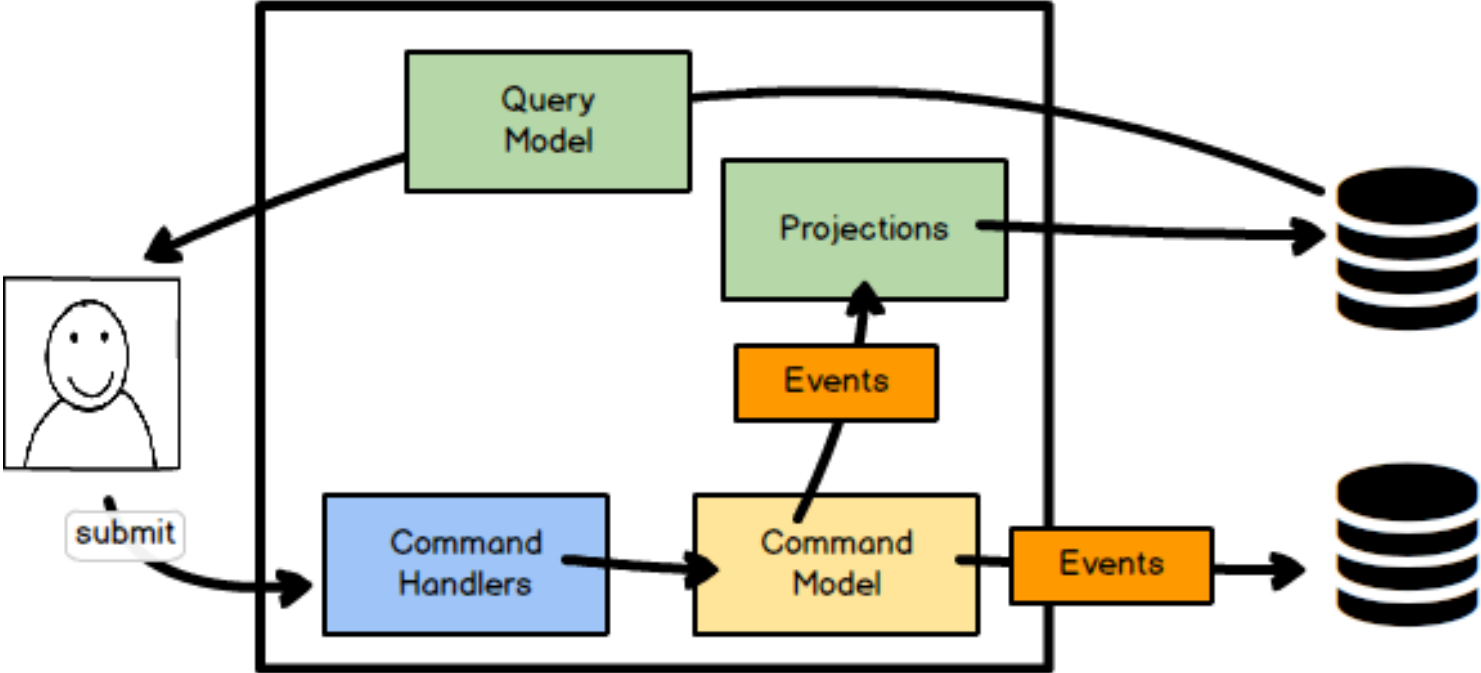
“hindrance: consequence of a public domain occupancy for the normal mobility of a specific targetgroup;”

The image shows a digital interface for managing mobility hindrances. On the left, a details panel for a specific hindrance is displayed:

- H 10061074** (with an edit icon)
- Hinder door Digitaal Vlaanderen**
- Laatst gewijzigd op 21/09/2022 15:50
- In opmaak** (In progress)
- van vr. 30/09/2022 t.e.m. vr. 30/09/2022
- WERF** (Construction site) with icons for pedestrian, bicycle, car, and truck.
- Two entries for "Uitg. hulpdiensten & plaatselijk verkeer" (Exit for emergency services & local traffic) with icons for ambulance and car.
- > Dossierbeheerder (Dossier manager)

On the right, a map shows a residential area with a yellow highlighted path. The path starts on a street labeled "Wanzenberg" and ends on "Mareberg". A blue line indicates a specific route or restriction. The map includes a scale bar (20m), a coordinate system (Lambert 72), and a "Luchtfoto" (Aerial photo) button. A vertical yellow "FEEDBACK" button is also visible on the right side of the map.

Event Sourcing & CQRS





LDES

Linked Data Event Stream

Linked what?

Classic API

- Query data
 - Different use-cases, different approaches
 - Balance between performance, genericity & simplicity
 - Hard to keep data standard
 - Download dataset (here's a shapefile!)

LDES

- Focus on linked (open) data
- Provide simple way to sync data
- Use-cases / approaches at consumer side



How does it work?

MobilityHindrance A v. 1

MobilityHindrance A v. 2

MobilityHindrance B v. 1

MobilityHindrance A v. 3

MobilityHindrance C v. 1

MobilityHindrance D v. 1

MobilityHindrance B v. 2

Page #1

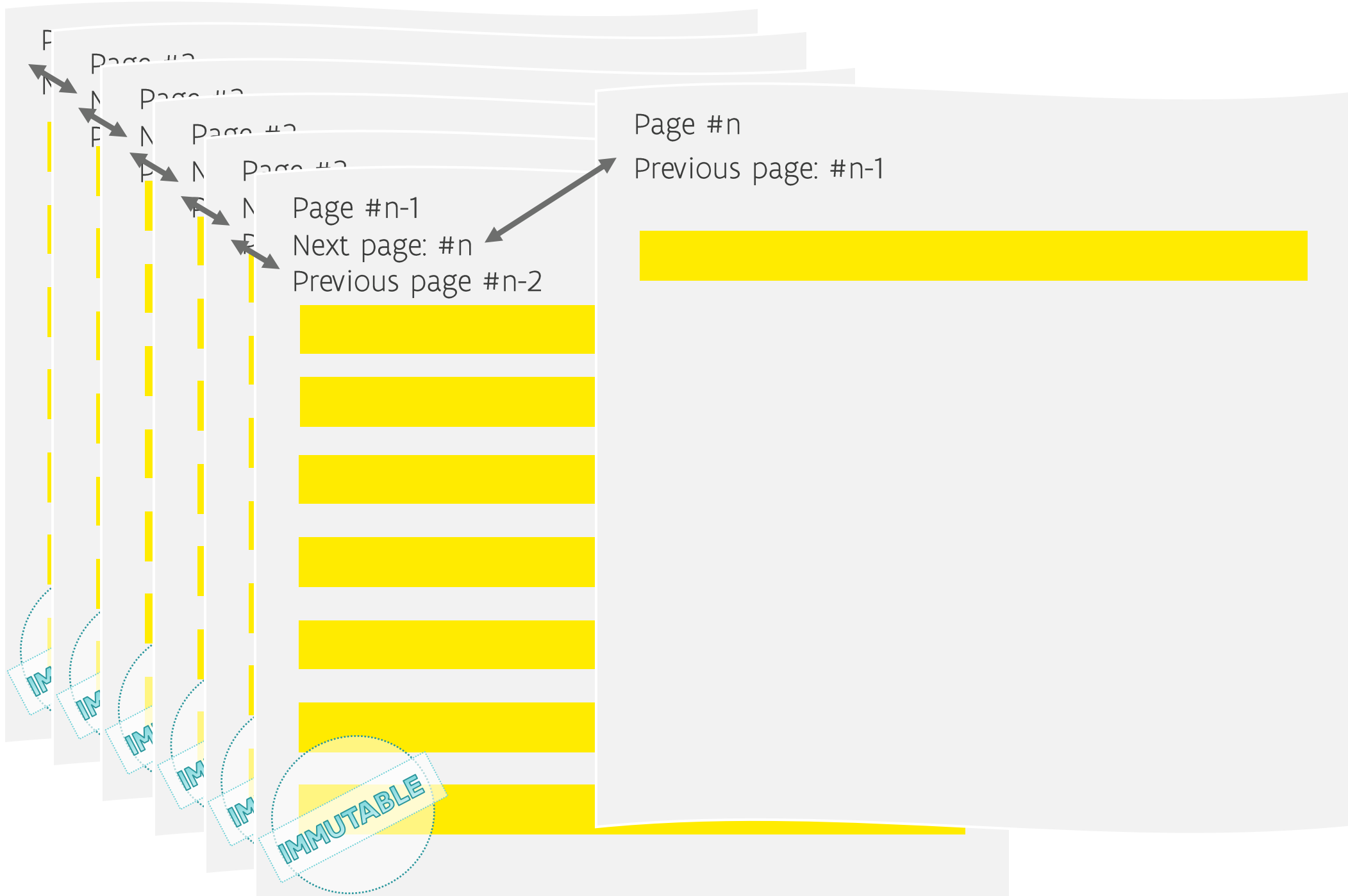
Next page: #2



Page #2

Previous page: #1





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```

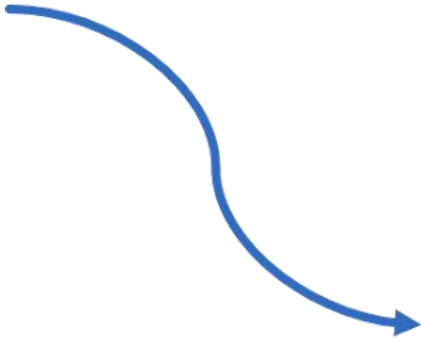
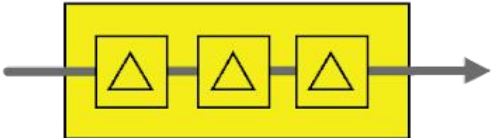
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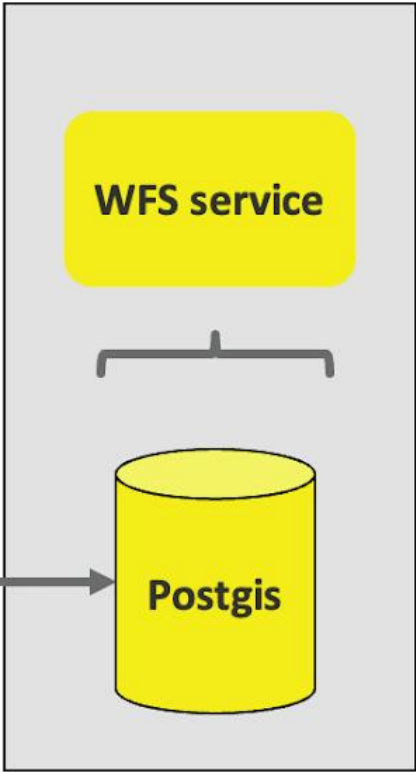
Proof of concept

Goal

Mobilitätshinder LDES

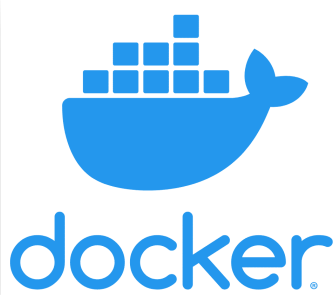
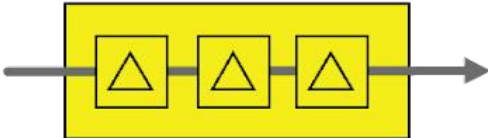


LDES client



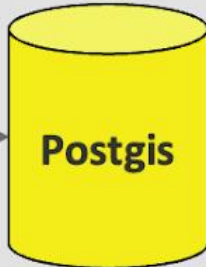
Technology

Mobilitätshinder LDES



LDES client

WFS service



A group of five business professionals are gathered around a white table in a modern office. Two men are seated at the table, one pointing at a laptop screen. A woman stands behind the table, smiling. Another man stands behind her, looking towards the camera. A fifth person is partially visible in the foreground on the right, holding a yellow highlighter. The office has large windows, a whiteboard, and various office supplies.

Demo



Use cases?

Links

- [LDES specification](#)
- [GIPOD LDES documentation](#)
- [Example project on GitHub](#)

Thanks!

Questions?

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