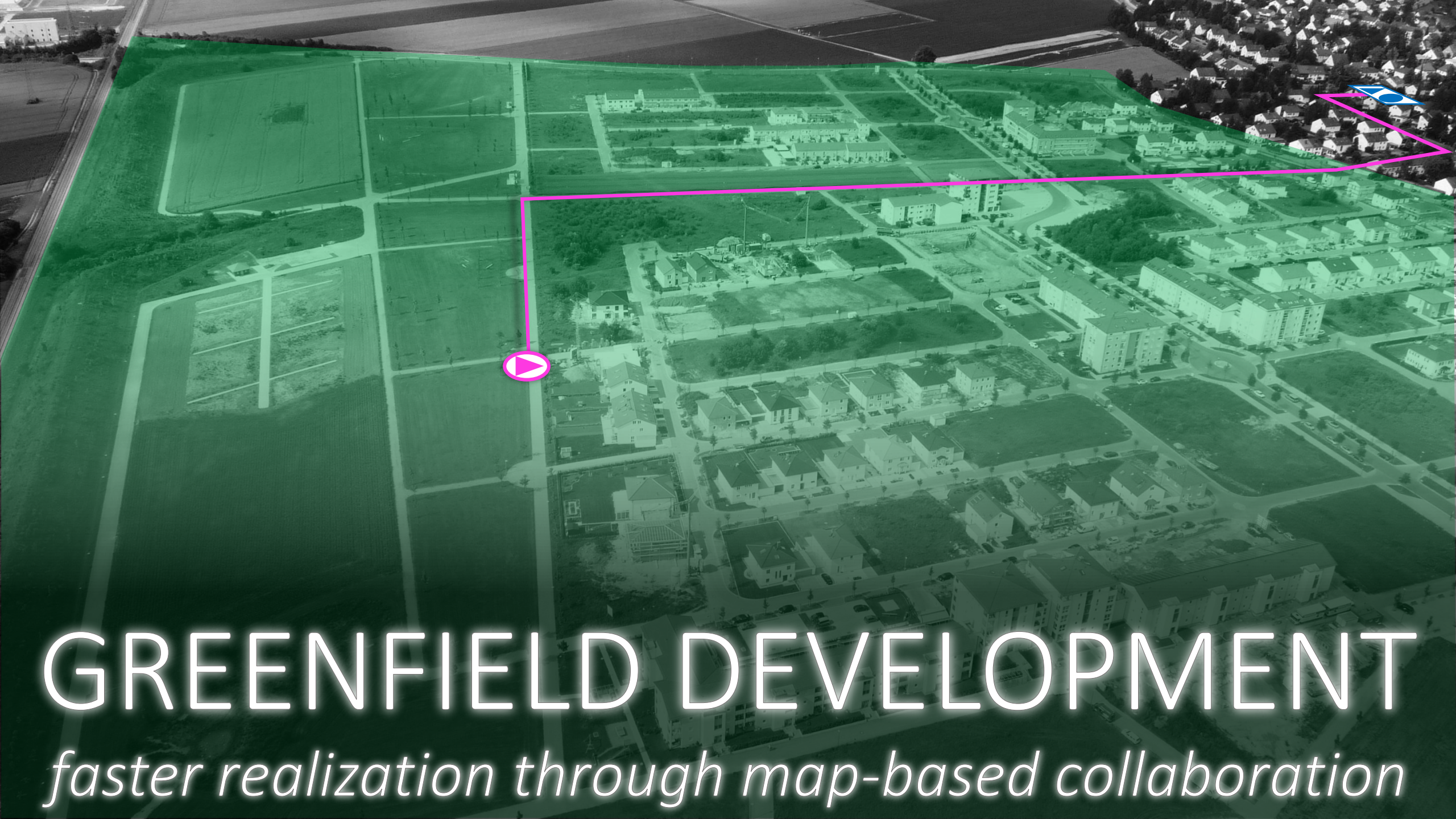


GREENFIELD DEVELOPMENT

faster realization through map-based collaboration

1. ABOUT US

Unitymedia Geospatial Services

integrates…

- geo data
- commercial data
- technical data
- assets / documentation

collaborates with and works for…

- sales and sales planning
- marketing
- planning and documentation
- data ware house und BICC
- strategy

GIS TEAM

develops and delivers…

- static maps
- web-based apps
- geo processing
- data services

exists since and consists of…

- 4 developers
- 1 product owner
- March 2017

Unitymedia Geospatial Services

Matthias Daues,
product owner geo data

- with Unitymedia since 2011
- sales as key account manager until 2015
- developing tools for sales planning and sales potential analysis since 2014
- Building team and portfolio of the geospatial services since 2017

Unitymedia Geospatial Services

our tools of choice

ETL:	**FME, Python**
Back End:	**PostGIS**
Server:	**ArcGIS-Server, Geoserver**
Front End:	**MapApps**
Desktop:	**ArcGIS, QGIS**

2. THE PROJECT – MAP BASED COLLABORATION IN GREENFIELD DEVELOPMENT

Annual throughput, approximated:

Greenfield Projects	200
Homes Connected	20.000

A dictionary of greenfield development*

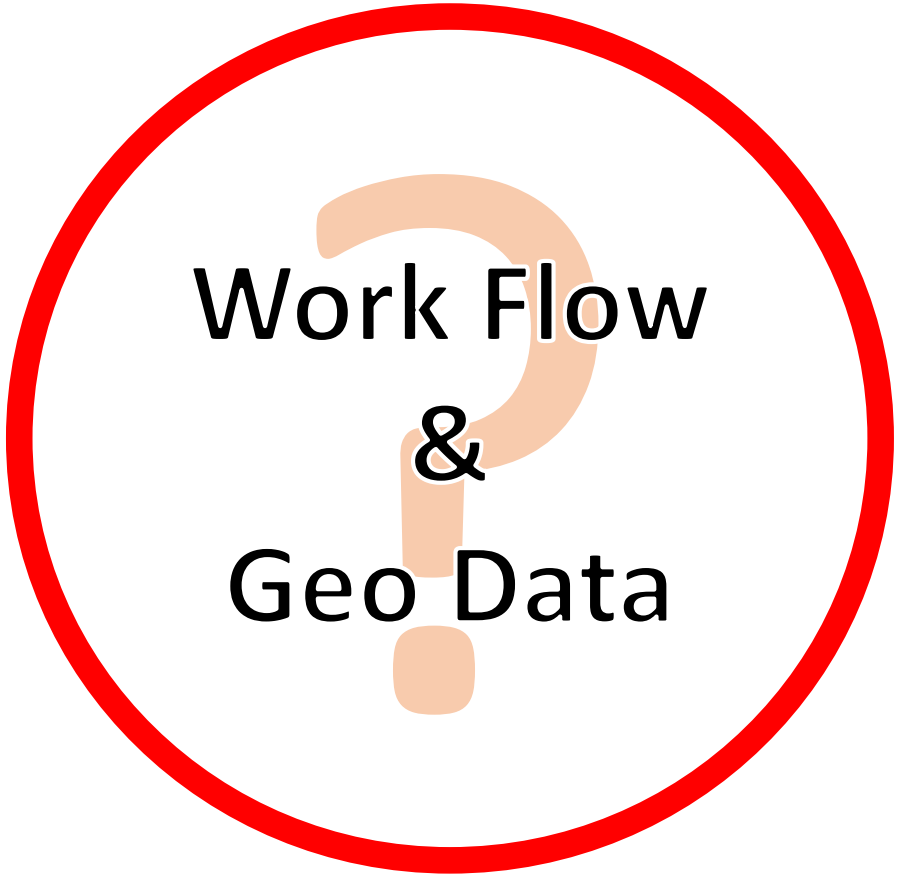
PROCESS	Set of instructions documented in PDF, Word, etc.
TASK ASSIGNMENT	Messages sent via Email
DATA ENTRY	Different people put the same data in different systems using unconstrained textboxes
SIGN OFF / AUTHORI-ZATION	Print out documents, sign manually, scan, email
DOCUMENT MANAGEMENT	Save files in dedicated file system
ERROR CONTROL	n.a.

** Incomplete and biased towards the initial steps.*
Especially down the process chain where low level design and construction are in charge, things are much more automated.

„Much work is done with computers, and yet it‘s not done digitally.“

There are some key weaknesses in our approach

- The departments involved work in isolated environments and systems.
- Data entry is often redundant and nothing is automated.
- Blimey, there is no GIS. None. Zip. Nada.



what people do { Work Flow } *in what order*

- Involves diverse sales and planning functions
- Each department has its own workflow and system environment
- **Work flow and systems need to be aligned in a unified E2E framework and connected via APIs. There must be a persistent project entity.**

where things are { **Geo Data** } *how to find them*

- A greenfield lot is a featureless void in GIS space
- Information initially is collected in a non-spatial format, e.g. text, pdf or image files
- **The Greenfield outline needs to be digitized. The geometry entity must be tied inseparably to the project entity.**

3. The beginnings of a truly digital work flow

These are the tools of choice:

GIS

Digitizing: MapApps 3.x
Viewing: MapApps 4.x
Web Service: FME
Server: ArcGIS Server

Project Management

Workflow Management: JIRA
Document Management: Confluence

Related Legacy Systems

CRM and Sales Tools
Address Management
Planning and asset documentation
Data Warehouse

Let there be a greenfield plot…

Receive a letter of intent

Create a project in JIRA

Draw the outline on a map.

Enter the project key.

Update data via web service.

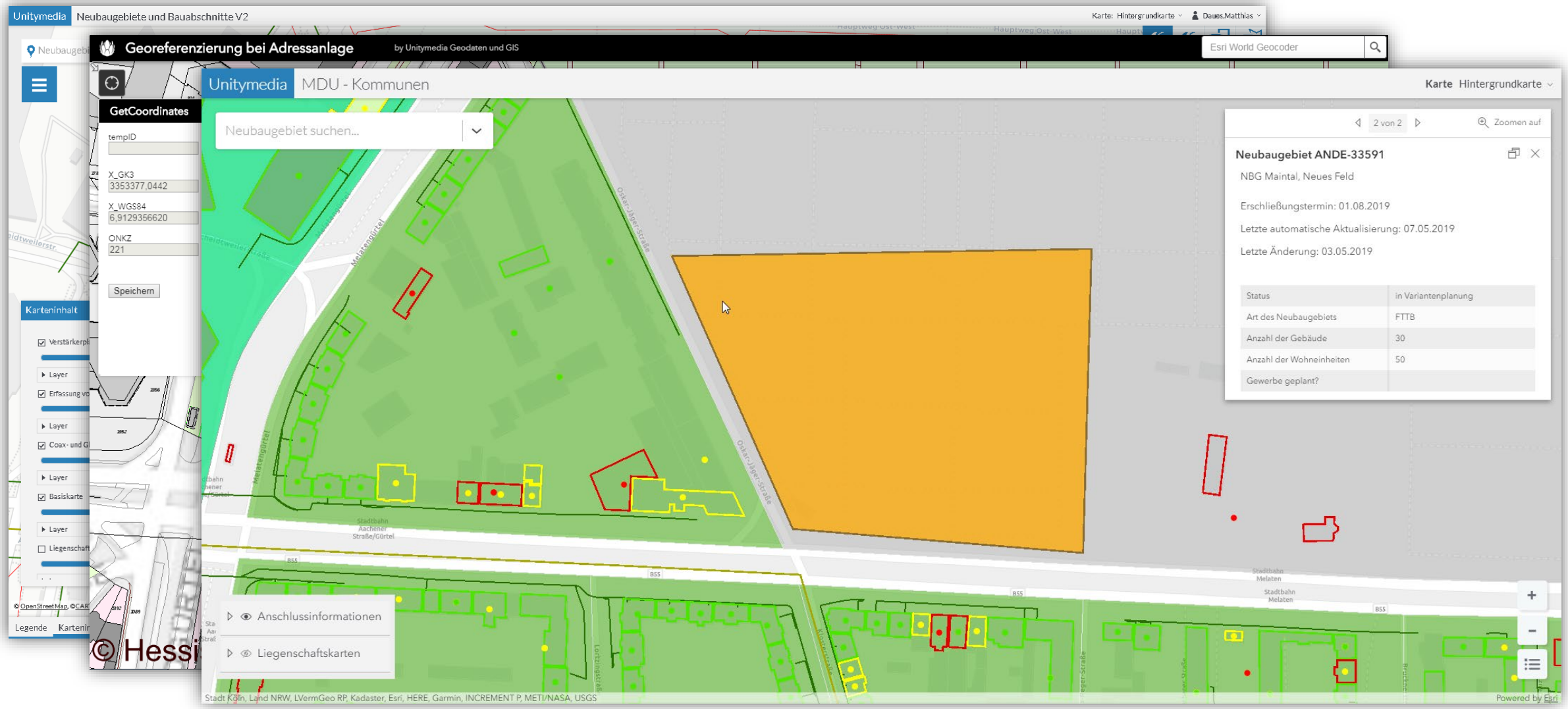
- Event-driven on creation
- Scheduled daily

Geo Data + Work Flow

- Draw outline and enter reference
- Map assisted georeferencing
- Look up status of development
- Use a spatial constraint to select data

- Spawn construction phase projects
- Enter new adresses
- Win customers and sell products
- Collect data for a report

We use the three branches of GIS-magic…



…to help the work flow become digital.

- A single point of data entry
- Workflow accessible through GIS and vice versa
- Department specific frontends to a unified data flow

4. OUR NEXT STEPS

BUG FIXES AND NEW FEATURES

- Go Live!
- Connect our data store to planning and documentation.
- Redevelop for MapApps 4.x / ESRI Java API 4.x

5. Q&A