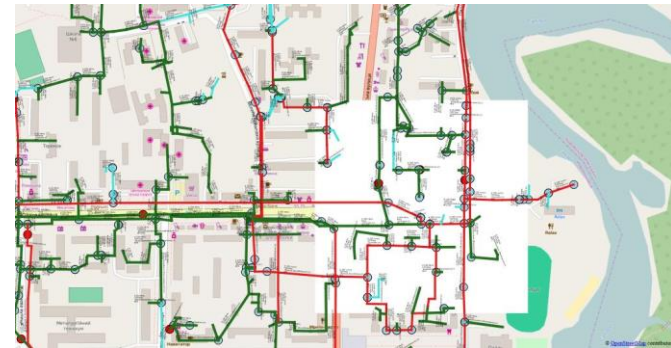
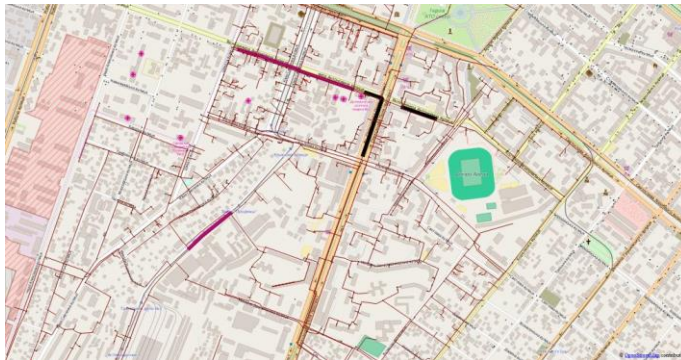




# Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

## Reform of Municipal Services in Eastern Ukraine



### Asset Inventory

April 2016



## Table of contents

- Introduction into the Asset Inventory
- Conversion of existing data
- Background data
- Adding and editing data
- Display of data in the map



## The Asset Inventory components

- PostgreSQL database backend
- QGIS GIS frontend



## PostgreSQL

- **Fully fledged Open Source relational database**
- **Stand-alone or on server with multiple concurrent clients**
- **Access rights (read-only, edit, administrator) controlled at database level**



## QGIS

- Fully fledged Open Source GIS software
- Widely used, also in local government
- Active online user community
- Extension through plug-in architecture



## Database structure

Table: location
<b>locationid</b>
districtid
streetsid
objectid
operationalzoneid
facilityid
typeofdatacollectionid
hyraid
locationdescription
sourcefeatureid
sourcetablename
from_elevation
to_elevation
geom_point_from
geom_point_to
geom_line
geom_point
sectorid

### Table: assets

<b>assetsid</b>
hyraid
abid
processunitid
pipesnetworkid
pipematerialid
<b>locationid</b>
assetusedid
assessorid
assettypeid
terrainid
assetname
financialinventorynumber
financialdescription
description
manufacturer
model

### Table: repairs

<b>repairsid</b>
<b>assetsid</b>
causeoffailureid
natureofproblemid
reportpreparedby
datenotification
daterepair
descdamage
descwork
costestrepair
nrcustomersaffected
durationwithoutwater
piclink1
piclink2
piclink3
geom_point



## Conversion

The bad news is....

...no 'one size fits all solution'

The good news is....

...For many data formats Open Source import tools for PostgreSQL are available

...Once in PostgreSQL anyone with some SQL knowledge can carry out the conversion

...only sector, asset type and geometry fields in AI are obligatory



## General steps conversion

1. **Identify corresponding fields in source information and AI**
2. **Establish what coordinate reference system the source information is in. The CRS used by AI is UTM 36 N.**
3. **Write the code to transfer the data from the source to the AI**
4. **Do a quality check and if necessary adjust code**





## General steps conversion (cont'd)

### Quality check geometry conversion





## Demonstration AI by the users

Alla Kovalenko from Dnipropetrovsk Vodokanal and  
Olena Beresovska from Novomoskovsk Vodokanal



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