OLU Collaborative Mapping

INSPIRE Hack 2017, Pilsen

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Team Members

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Supporting Projects

• Plan4all association – aims to provide open datasets in transport, spatial and city planning, environment and tourism that are easy to reuse and access – http://www.plan4all.eu/

• DataBio – Data-Driven Bioeconomy – Horizon 2020 project oriented on usage of Big data in bioeconomy. Pilots are focused on agriculture, forestry and fishery domain – http://databio.eu/
• Open Land-Use dataset
  – Detailed land-use maps of various regions based on certain pan-European datasets such as CORINE Landcover, UrbanAtlas enriched by available regional data
  – Open, harmonized and seamless database
  – Open and flexible data model
  – Combination of global and local data
  – http://sdi4apps.eu/open_land_use/
Used Software / Tools

  - Web-based sensor data management system.
  - Solution suitable for static in-situ monitoring devices as well as for mobile devices with live tracking ability
  - Module for collecting VGI
  - BSD licence

- **HSLayers-NG + Cordova**
  - Hybrid mobile and responsive web application
  - Many components available
  - Open Source
Project Idea and Results

• Display OLU in mobile app as an editable base map
• Create map features with corresponding attributes
• Insert notes or proposals for improvement of the base map (OLU)
• Data model of SensLog VGI module is independent on the target spatial data set
Structure of the Solution

SensLog core

Database

OLU

SensLog VGI module

HS Collector for OLU mobile version

HS Collector for OLU web version
Mapping OLU to SensLog

General VGIObservation object

Example of OLU feature as VGIObservation

```json
object: VGIObservation
id: Long
gid: UnitPosition
time_stamp: Timestamp
category: VGICategory
description: Text
attributes: JSONObject
dataset: VGIDataset
unit: Unit
media: VGIMedia[]

-

"type": "Feature",
- "geometry": {
  "type": "Point",
  "coordinates": [
    16.6451258,
    49.1961478
  ]
},
- "properties": {
  "attributes": {
    "name": "Parking update",
    "additional_geometry": "POLYGON((13.35 49.72,
    "status": "update"
  },
  "category_id": 110,
  "dataset_id": 999,
  "description": "undefined",
  "media_count": 0,
  "obs_vgi_id": 324,
  "time_stamp": "2016-09-25 13:13:23+02",
  "unit_id": 1111
  }
}
```
HSLayers-NG Redesign

• Conforming to Material design
• Goals:
  – Simple and intuitive interface
  – Responsive layout
  – Visual integrity across web and mobile versions
• Most functionality will also be more accessible as a result
  – multiple theme options
  – user themes
Mobile Application So Far

- Geolocation retrieval
- Layer management
- Feature list
- Information collection + media

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Mobile Application Redesigned

Simple UI with floating action buttons

Actions under FAB

Menu with components

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