

## **LAB: INTERNET-BASED GEOSPATIAL INFORMATION VISUALIZATION TOOLS, MARCH 2017**

Fundamental GIS concepts covered:

- Concept of layer
- Geographical data representation: vector, raster (image)
- Layers & Geometry types (points, lines & polygons)
- Shapefiles: a de facto GIS layer standard
- Coordinate Reference System (CRS) & map projection
- Notion of scale
- Different maps for different purposes: thematic mapping, Digital Elevation Models, topographic, ...
- Intro. to semiology of graphics & thematic mapping
- Online web mapping/geospatial visualization ecosystem overview
- Notions of spatial query & spatial analysis

### **Day 1**

#### **INTRODUCTION**

- Lab. objectives & setup [lectures & practical classes]
- Course resources and materials

#### **QGIS INTRO.**

- Install & set up
- Handling QGIS plugins
- Handling GIS layers (opening, overlaying, selecting features, basic styling and saving as project)
- Handling Coordinate Reference Systems (CRS) & map projections
- Importing a georeferenced text file & overlaying it over Google Maps

#### **THEMATIC MAPPING INTRO. WITH SAFECAST DATA**

- Thematic mapping of punctual data

### **Day 2**

- Recap. & finalizing day 1

#### **THEMATIC MAPPING INTRO. WITH SAFECAST DATA (CONTINUED)**

- Addressing overplotting with spatial aggregation

#### **ONLINE MAPPING WITH CARTO**

- CARTO introduction & Safecast data upload
- Basic thematic mapping

### **Day 3**

- Recap. & finalizing day 2
- PRACTICING WITH YOUR OWN DATA