

## Targeted skills

By the end of this module, you will know how to:

- convert Excel file to csv (comma separated value) files
- import/convert csv file with lat, lon attributes into GIS layer
- overlay layer created over GoogleMap or OpenStreetMap layers

## Data

Data to be used in this module can be found in the following folders:

`data/bluetongue_2014_2015.xls`

## Exercise outline & memos

### 1. Converting Excel file format to csv

Before being able to import your data into QGIS as a plain GIS layer, you need to pre-process it via Microsoft Excel or OpenOffice for instance.

To do so for instance with Microsoft Excel:

Open: `data/bluetongue_2014_2015.xls`

[In Excel top menu]

File   Save As..

[In Save window/dialog]

Change "Format" dropdown to "Windows Comma Separated (.csv)"

### 2. Importing/converting csv file with lat, lon attributes into GIS layer

[In QGIS top menu]

Layer   Add Layer   Add Delimited Text Layer...

then reproduce settings shown below (File format, First record as field names, X field, ...:

Create a Layer from a Delimited Text File

File Name

Layer name  Encoding

File format ☒ CSV (comma separated values) ☐ Custom delimiters ☐ Regular expression delimiter

Record options Number of header lines to discard  ☒ First record has field names

Field options ☐ Trim fields ☐ Discard empty fields ☐ Decimal separator is comma

Geometry definition ☒ Point coordinates ☐ Well known text (WKT) ☐ No geometry (attribute only table)

X field  Y field  ☐ DMS coordinates

Layer settings ☐ Use spatial index ☐ Use subset index ☐ Watch file

	Id	Diagnosis Source	Latitude	Longitude	Region	Country	Admin1	Locality Name	Locality Qu
1	187642	OIE	38.598000	16.223400	Europe	Italy	Calabria	Soriano Calabro	Centroid Ad
2	183257	OIE	38.201130	15.673560	Europe	Italy	Calabria	Reggio Calabria	Centroid Ad
3	182765	OIE	41.711700	12.550150	Europe	Italy	Lazio	Roma	Centroid Ad

Click "OK"

Select "WGS84" as CRS then click "Ok"

Finally, save the layer as shapefile: click right on layer and "Save As"

Congrats, you have created your first GIS layer / shapefile from scratch !

### 3. Overlaying layer created over GoogleMap or OpenStreetMap layers

Install "OpenLayers Plugin" if not already installed. If/when installed the plugin needs to be activated (checkbox on).

[In QGIS top menu]

Web OpenLayers plugin Google Maps Google Hybrid

Warning: Check order of layers in the Layers panel as the point layer might be lower in the stack