Targeted skills

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

- change Coordinate Reference System and map projection on the fly
- change & persist CRS and map projection of a shapefile

Data

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

```
data/ne_110m_admin_0_countries/
```

Exercise outline & memos

1. Changing CRS on the fly

Open:

```
data/ne_110m_admin_0_countries/ne_110m_admin_0_countries.shp
```

and

```
[In QGIS top menu]
```

Project Project Properties Add Vector Layer CRS (tab) Check "Enable on the fly CRS transformation"

Play around with various CRS, apply and see the variety of world representation and their respective distortion (for instance select: Mercator, or World Bonne.

Notice as well that in the status bar (bottom part of the screen), coordinates are not anymore in lon, lat but in x,y meters.

2. Changing and persisting CRS of a layer/shapefile

In the previous case, the CRS associated to the layer/shapefile was not changed but simply update "on the fly" dynamically. If you want to change the CRS for a layer you should do the following:

```
[In QGIS Layers list]
Click right on the layer of interest and select 'Save As'
then you change the CRS via the CRS dropdown and save it (preferably with an explicit name)
```