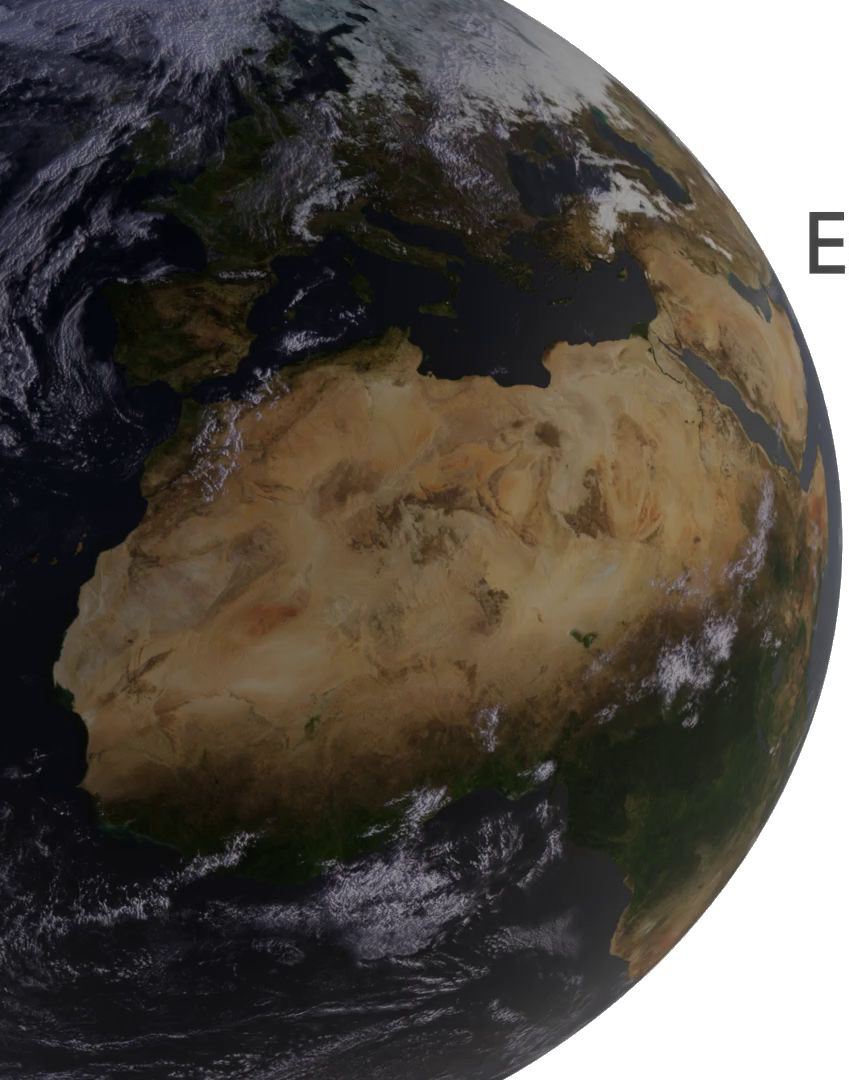


Using Blender for Earth Sciences visualization

Barcelona Supercomputing Center
Centro Nacional de Supercomputación

Oriol Tintó
Stella Paronuzzi
Thomas Arsouze

EGU General Assembly 2020

For this talk a video presentation was prepared and can be found at:

http://tiny.cc/EGU2020-21494

Also, the next slides will show a simple example on how to use geoscientific data within Blender.

There are many good Blender tutorials freely available that can help anyone willing to learn.

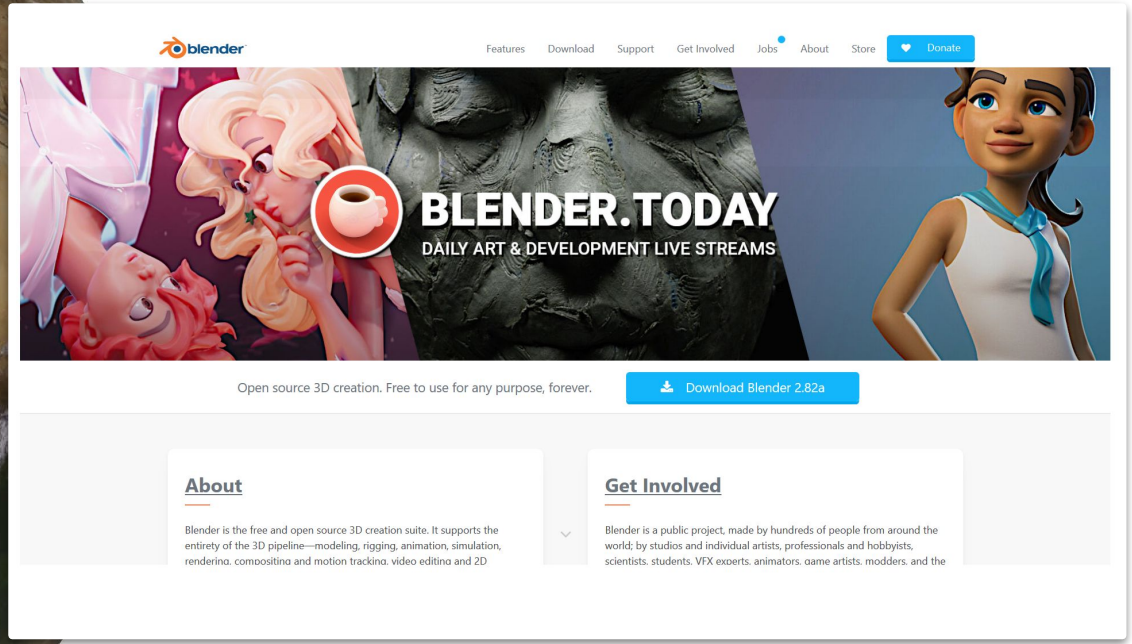
The following slides contain few steps on how to start using global geoscientific data within Blender.

Disclaimer!

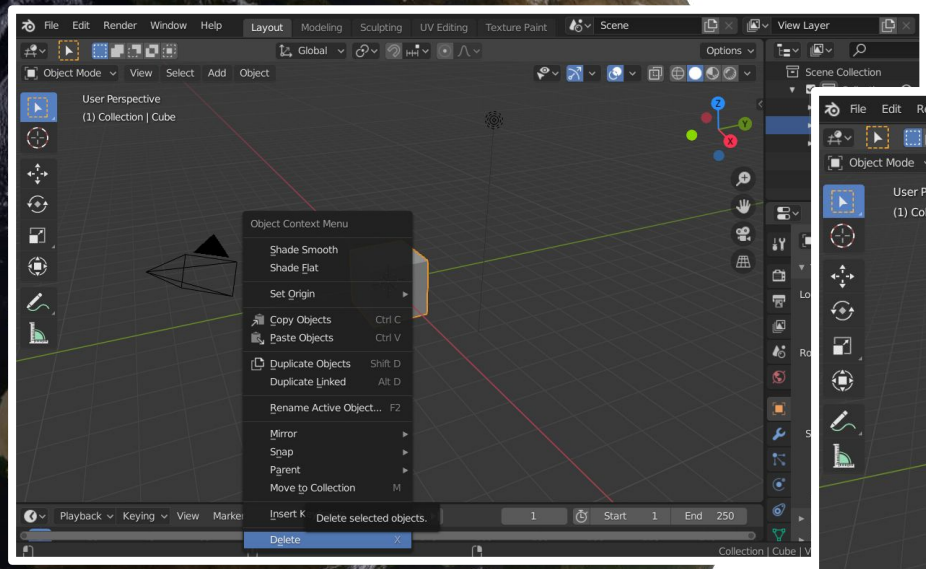
In order to follow the steps you need to have a way to represent your data in a black and white equirectangular plot.

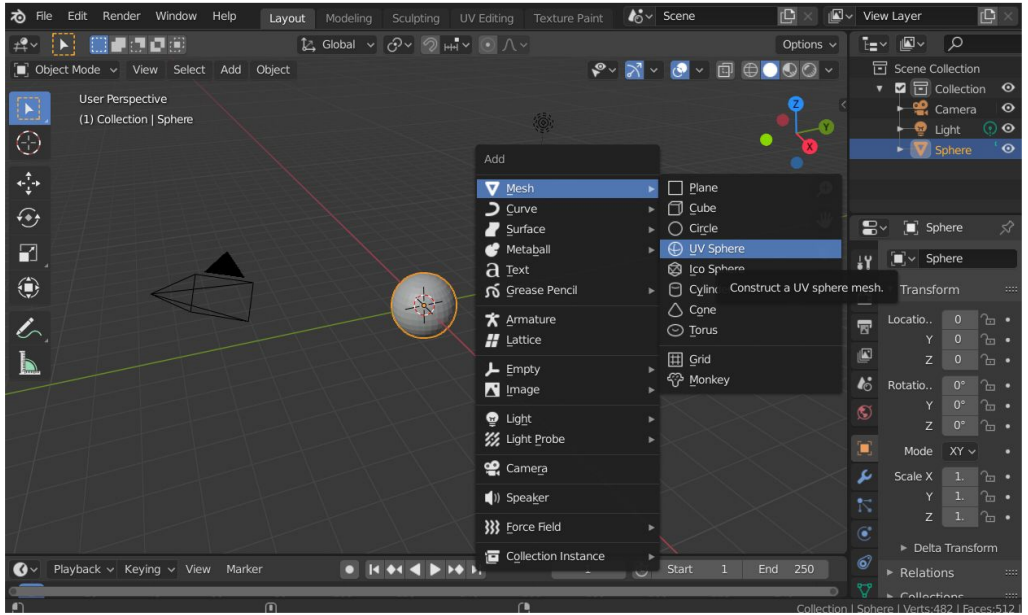
There are many tools available that can make the job: Cartopy, Panoply, …

Step 1: Download Blender at **www.blender.org**

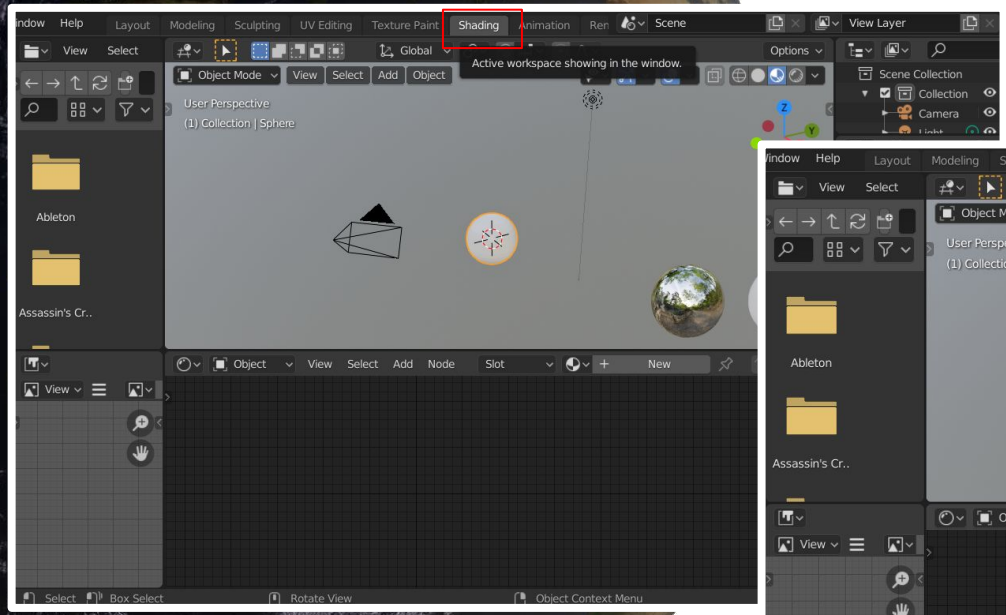


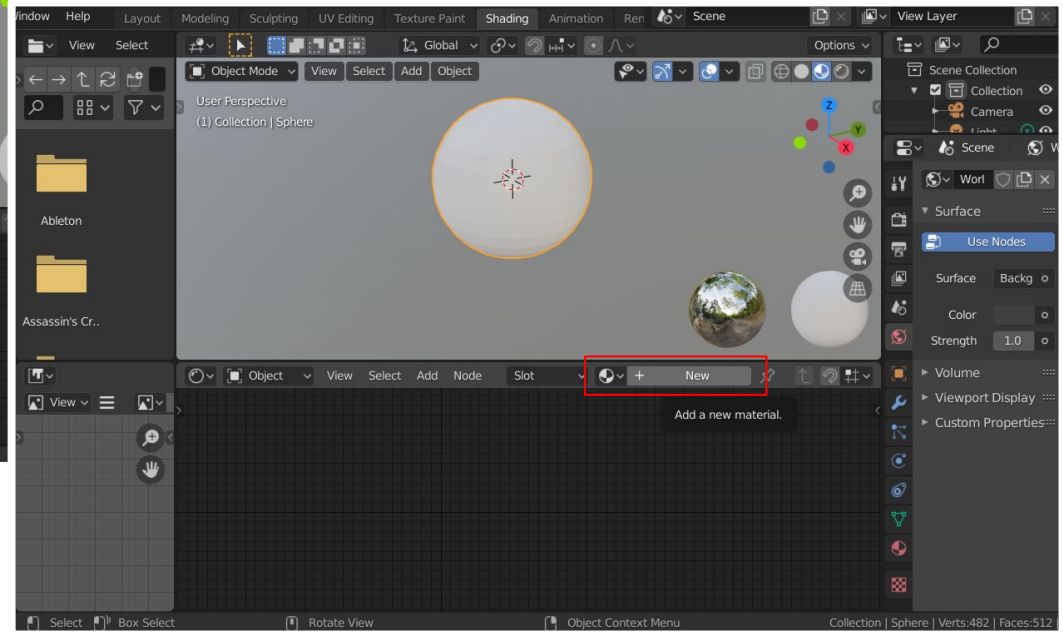
Step 2: Open Blender, delete the Cube and add an Sphere



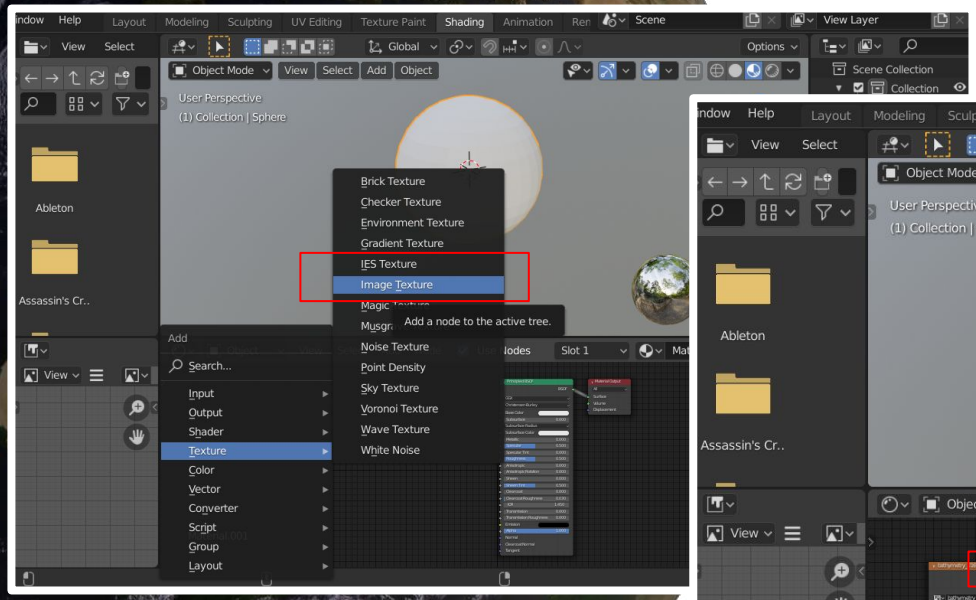


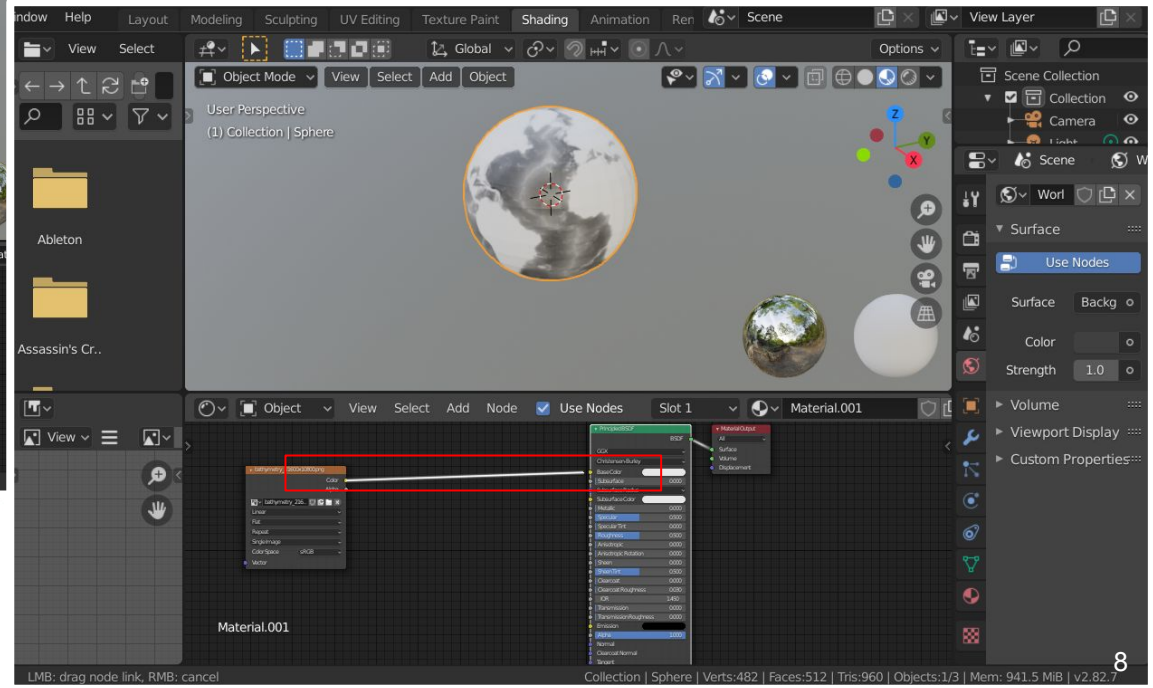
Step 3: Switch to Shaders tab and create a new material.



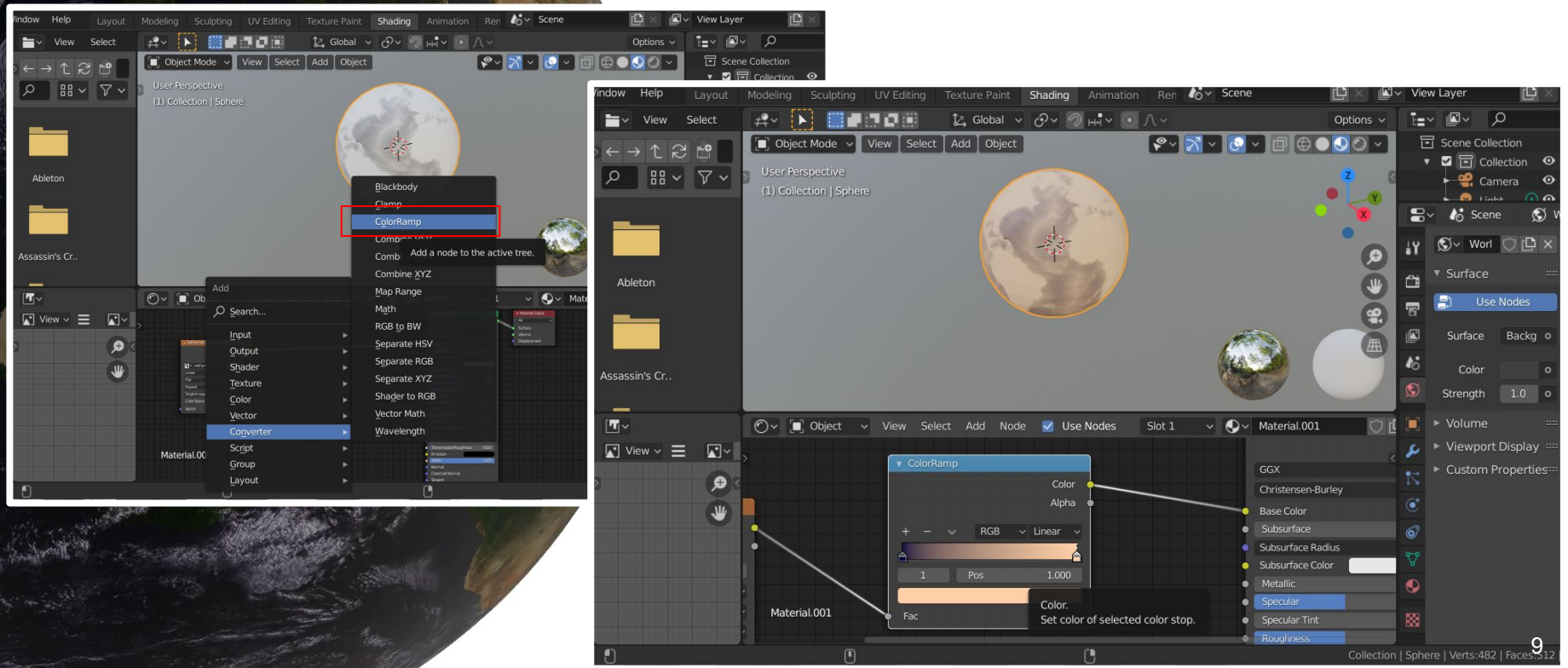


Step 4: Add an Image texture, select your equirectangular black and white plot and connect it to the base color.

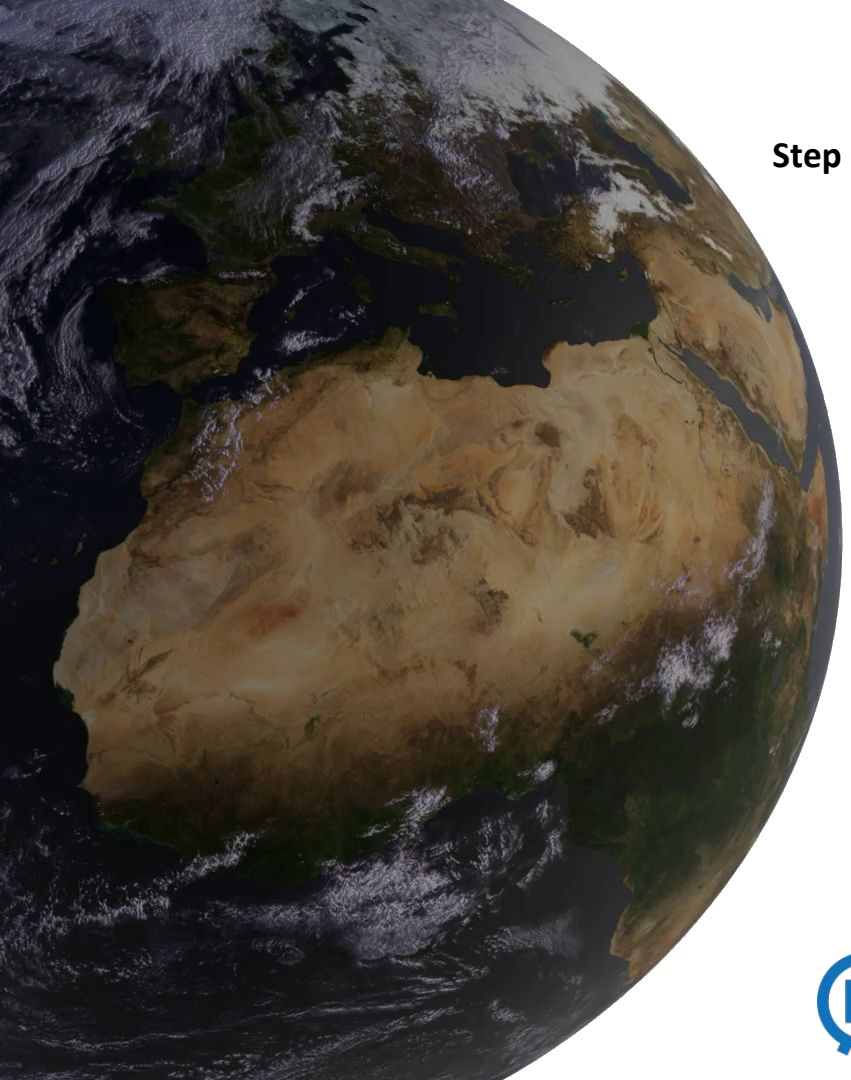




Step 5: Add a color ramp converter to customize the color map.



Step 6: Experiment a bit with the unlimited possibilities.



Bonus:

- It is possible to directly load any data inside Blender without the need of producing an intermediate plot using python scripts. We are working on an **Addon to load and interpolate netCDF** data directly inside Blender.
- There's a huge development effort in Blender and soon there will be **OpenVDB** integrated, which will make possible to work with 3D data much easily.

For any questions or comments please don’t hesitate to contact me at:

oriol.tinto@bsc.es

EGU General Assembly 2020

Barcelona Supercomputing Center
Centro Nacional de Supercomputación