



MIZAR

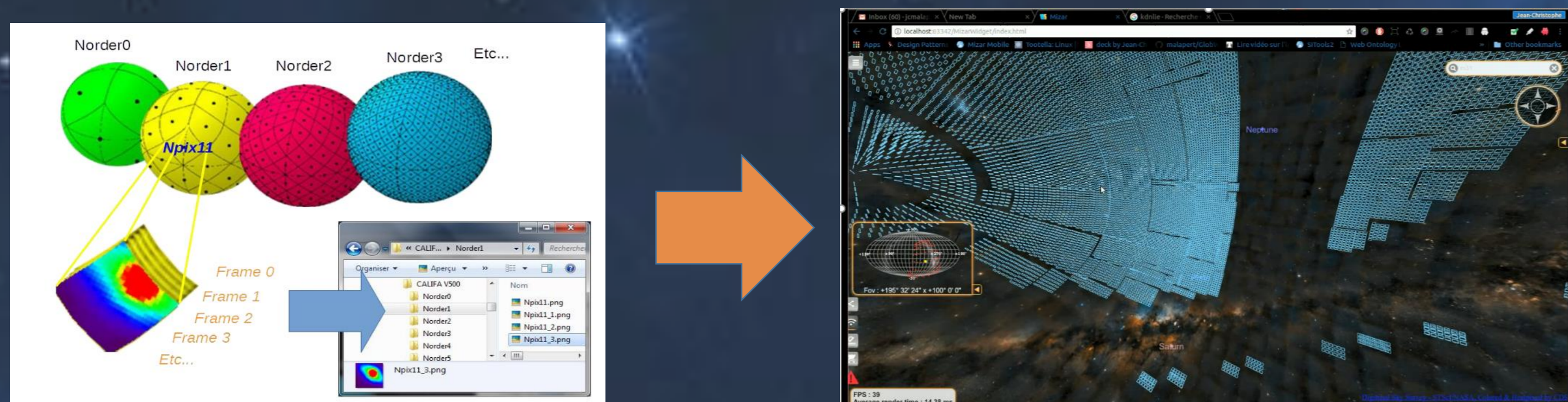
a GIS web application for planets and the celestial sphere



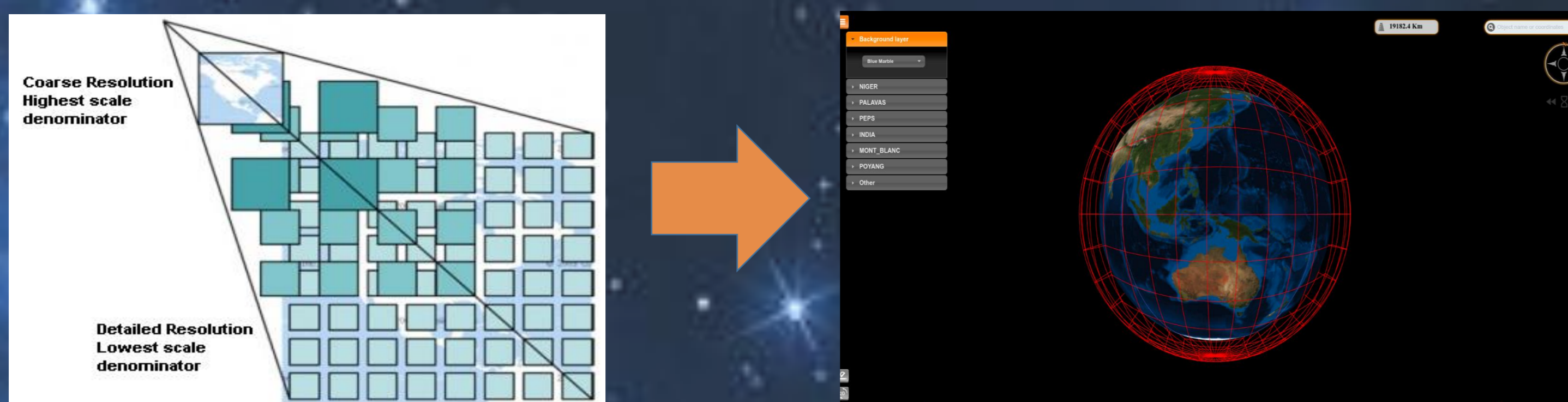
Context

Mizar is an open-source, WebGL-based JavaScript library for visualizing rasters and vectors on celestial bodies models : planets and the celestial sphere. This library, developed since 2013 by CNES, has been used in several fields (climate monitoring, hydrological projects, exploration of Mars and the Moon, astrophysics/cosmology). These various implementations allowed the library to integrate new functionalities and to evolve its architecture. Currently, this library has been successfully integrated with CNES 'latest archiving system tool (REGARDS), which will allow Mizar to have a stable budget for development and maintainability.

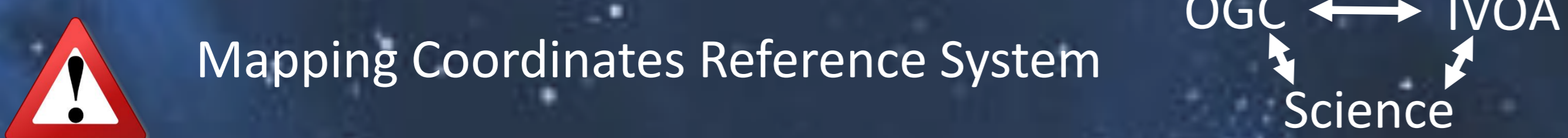
Handling images and vectors



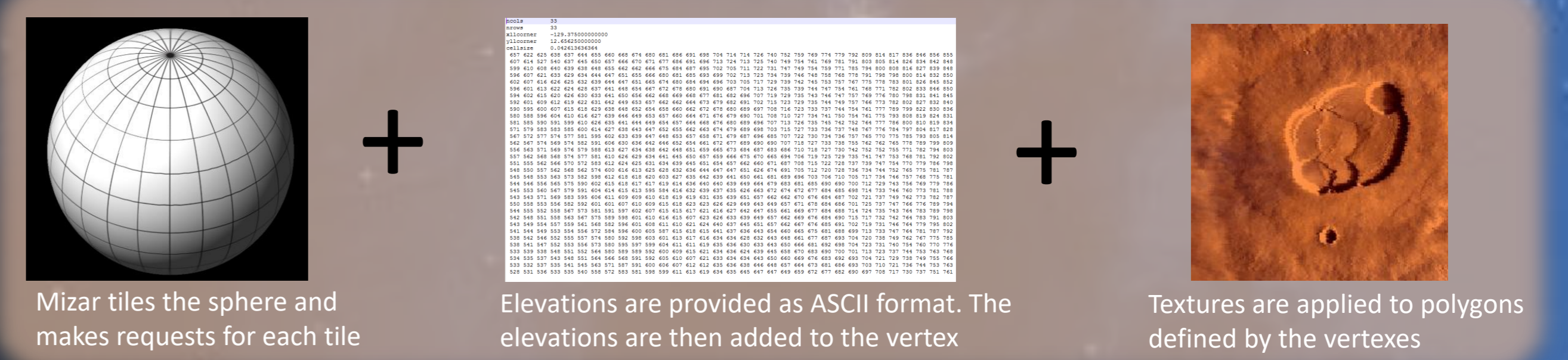
Tiling using IVOA standards



Tiling using OGC standards



Handling Elevations



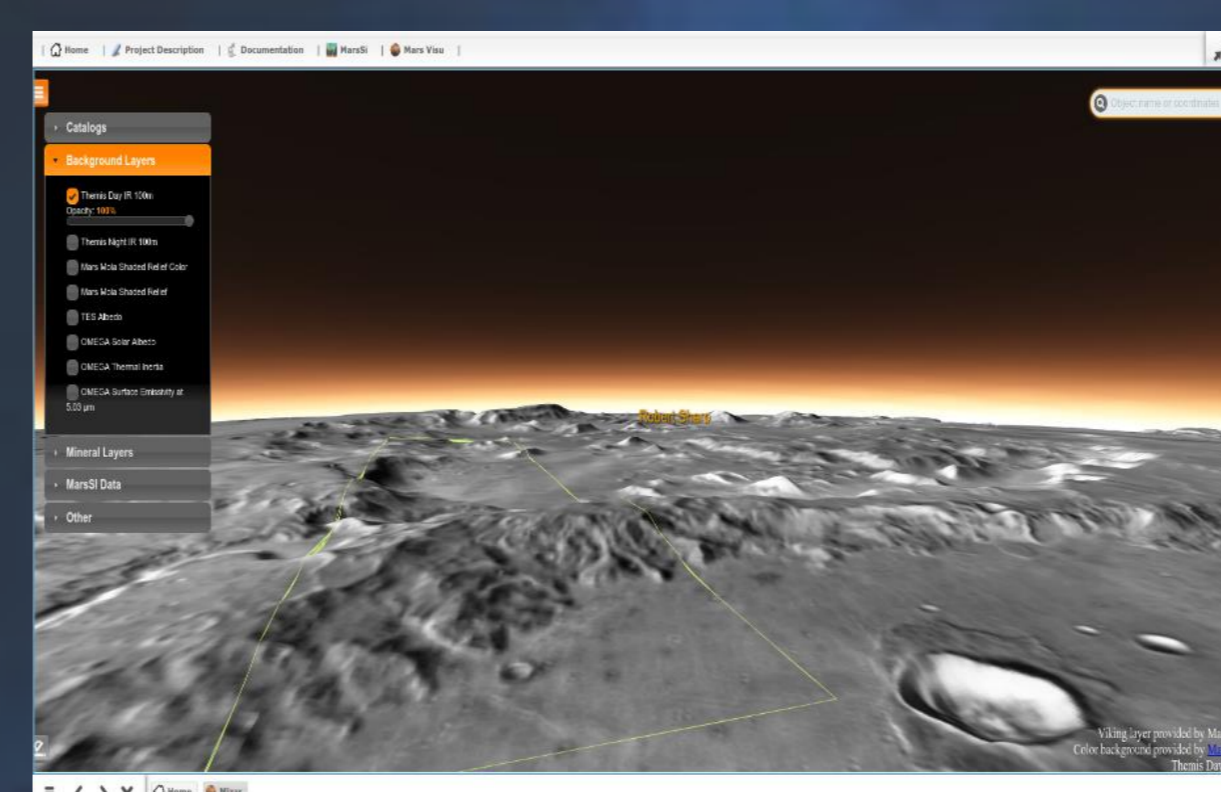
Mizar tiles the sphere and makes requests for each tile

Elevations are provided as ASCII format. The elevations are then added to the vertex

Textures are applied to polygons defined by the vertexes

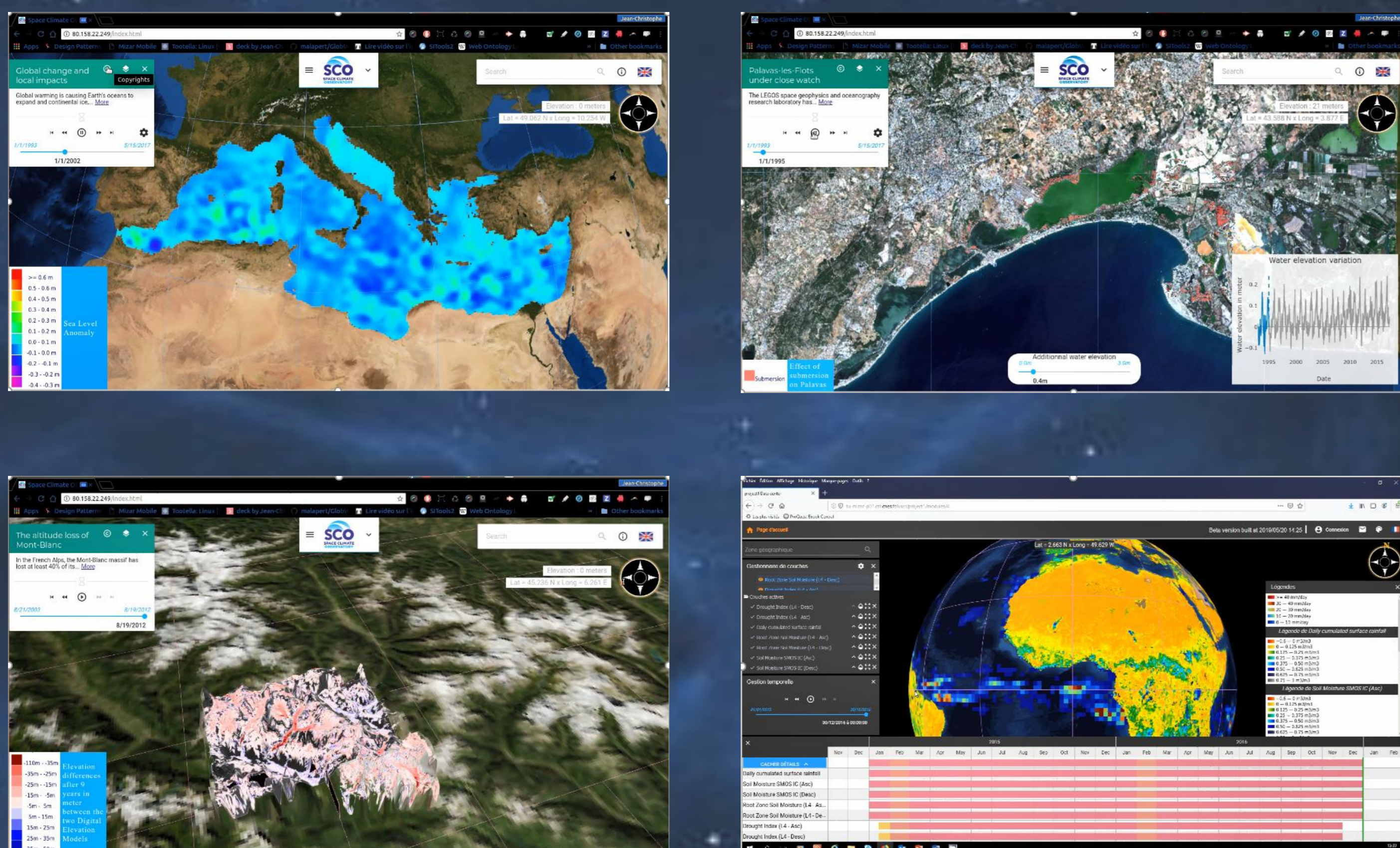
With OGC

With IVOA



No equivalent IVOA standard

Examples for Earth Observation



Examples for Astronomy

