EXIOMOD: linking with OpenEntrance platform

**Reading data from OpenEntrance Platform**

* Download data from platform: GENeSYS-MOD-pathways\_v1.0.xlsx
  + Go to [openENTRANCE Scenario Explorer (iiasa.ac.at)](https://data.ene.iiasa.ac.at/openentrance/#/uploads)
  + Click on tab ‘downloads in the upper right corner.
  + Select the scenario that you like to download.
  + Save this scenario on your computer in folder 01\_read\_external\_data in the exiomod folder.
* EXIOMOD is written in GAMS. GENeSYS-MOD scenario are also uploaded in GAMS using .gms files.
  + 01\_read\_OE\_platform\_data.gms
    - This file reads in data from the OpenEntrance platform.
    - Output of this file is the following parameter: OEdatabase\_data(mod\_OE,sce\_OE,reg\_OE,var\_OE,unit\_OE,year\_OE)
  + 02\_aggregate\_OE\_platform\_data.gms
    - This file takes information from the OpenEntrance platform that can be used in the modelling. In this case, we comment on the electricity mix.
    - In this file we
      * disaggregate the 5-year time period to 1-year time periods using interpolation.
      * Bring the electricity production sectors of GENeSYS-MOD to the sector classification in EXIOMOD.
      * Aggregate the regions to the right region level using EXIOMOD.
      * Calculate electricity mix shares until 2050.
      * Create index of change in the electricity mix share with respect to previous year.

**Writing data to OpenEntrance platform**

* A run of EXIOMOD placed output files (.gdx files) in the folder gdx\merged\_gdx
* In the main folder you find OpenEntrance\_format.m. This matlab file brings the data from the gdx file in the right format in a .xlsx file.   
  This document:
  + Reads data from .gdx file
  + Changes the order of the columns as requested in the EO-platform format
  + Adds the right unit for each variable
  + Adds the name of the model for each variable
* The OpenEntrance format requires that some information should be placed in one cell in Excel, for example, variable name. For output on the productlevel, this Variable name is: Output|Product|<industry>. This matlab file helps to bring the output of EXIOMOD exactly in this format.
* Upload data on openentrance platform
  + Go to [openENTRANCE Scenario Explorer (iiasa.ac.at)](https://data.ene.iiasa.ac.at/openentrance/#/uploads)
  + When you are logging in, click on your name in the upper right corner
  + Click on ‘uploads’
  + In the new window click on the ‘+’ sign.
  + You are now able to upload your file.