



# Arpae and Emission Inventory

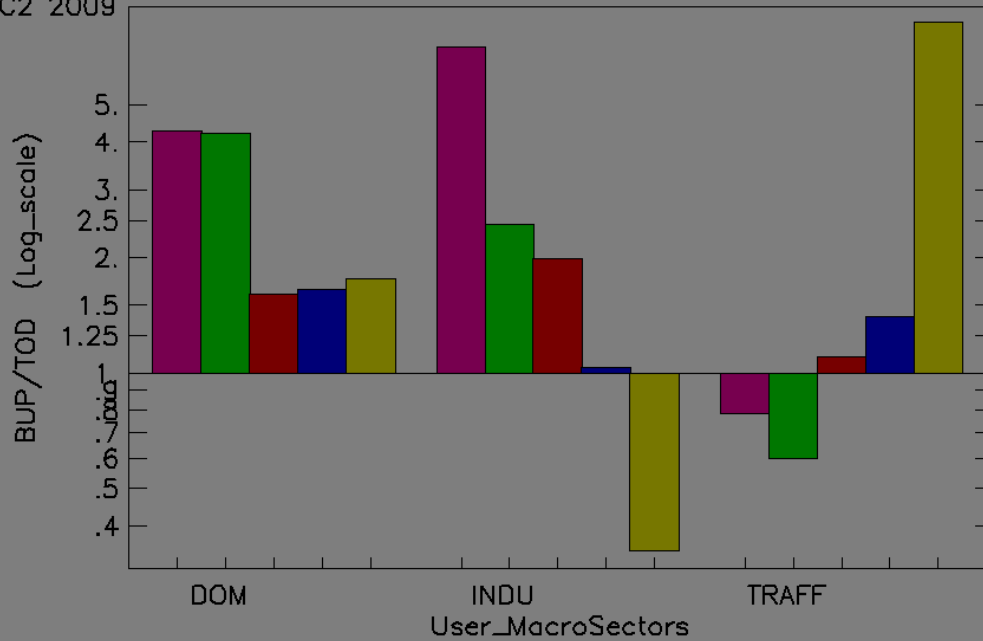
- Arpae is responsible of Regional Emission Inventory commissioned by Emilia Romagna region
- The regional emission inventory is a bottom-up inventory and we use INEMAR tool, as other Italian regions, (Lombardia, Piemonte, Veneto, etc)
- The Regional Emission Inventory should be coherent with National Emission Inventory (Top-down, bottom-up inventory)
- FAIRMODE EMISSION tool should be useful to compare emission inventory

# Preliminary results

BU\_EMR2010\_info 2010  
TNO-MACC2 2009

Emission BUP/TOD

NH3  
VOC  
NOx  
PM10  
SO2  
x NaValue

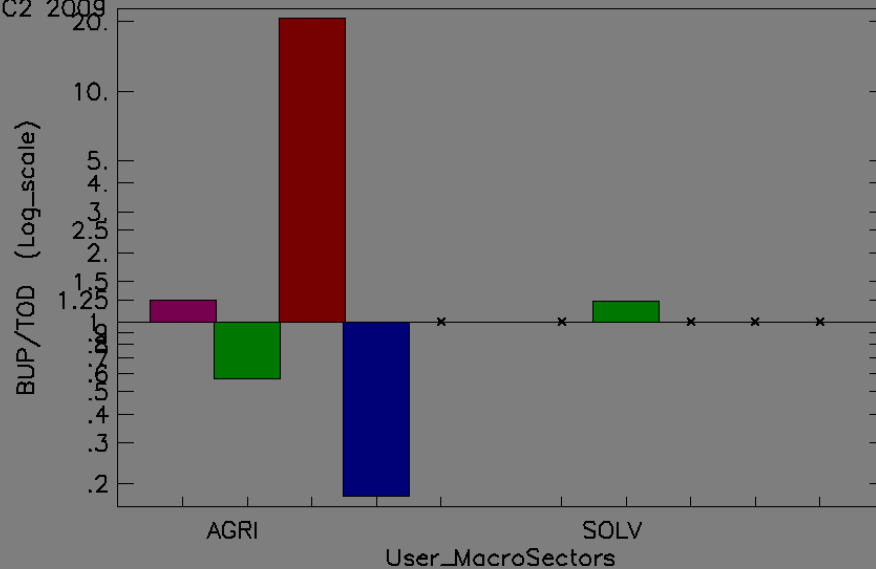


General overestimation, the largest discrepancy is found for SO2 for TRAFF, on the other hand NOx is the pollutant with lowest differences fro TRAFF.

BU\_EMR2010\_info 2010  
TNO-MACC2 2009

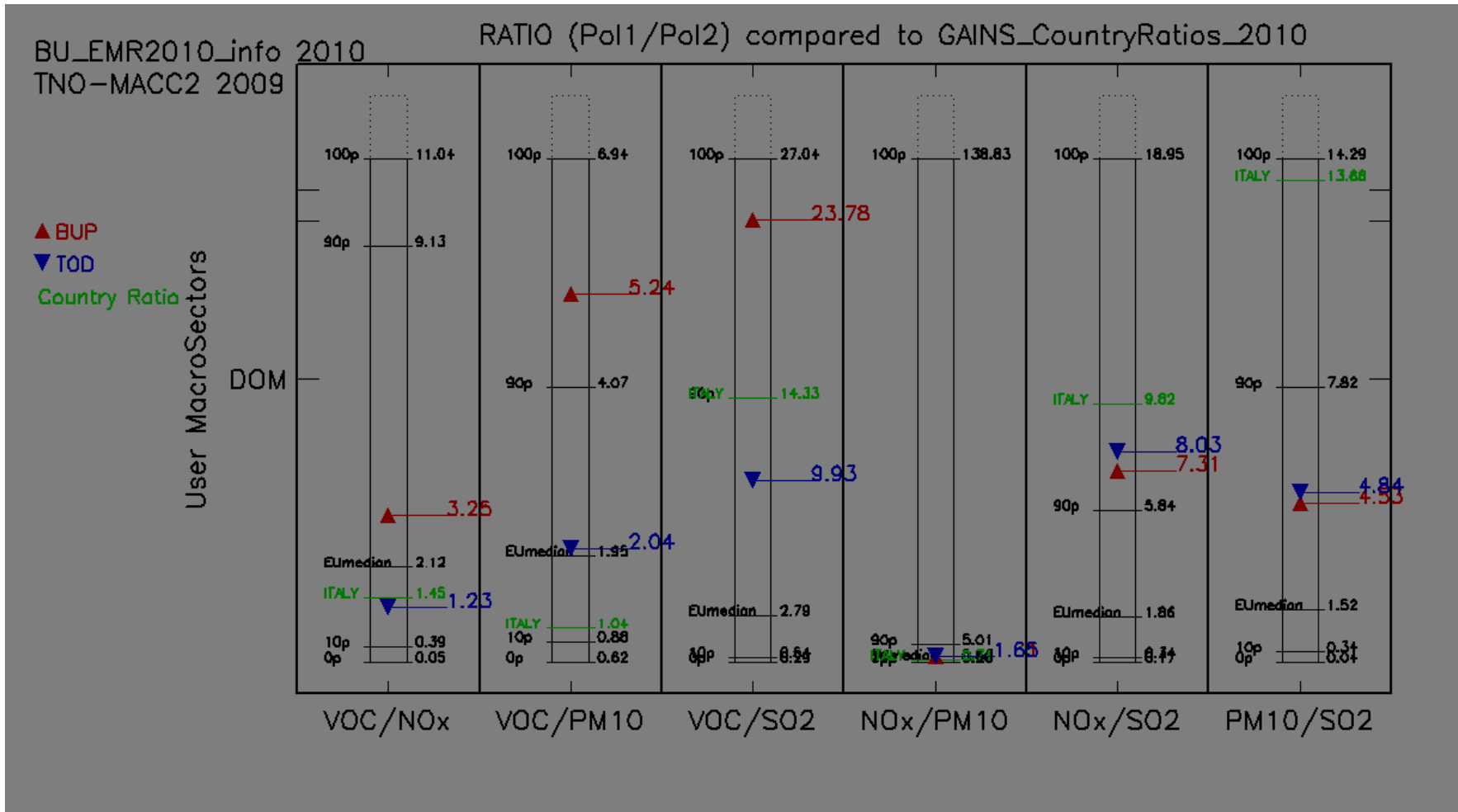
Emission BUP/TOD

NH3  
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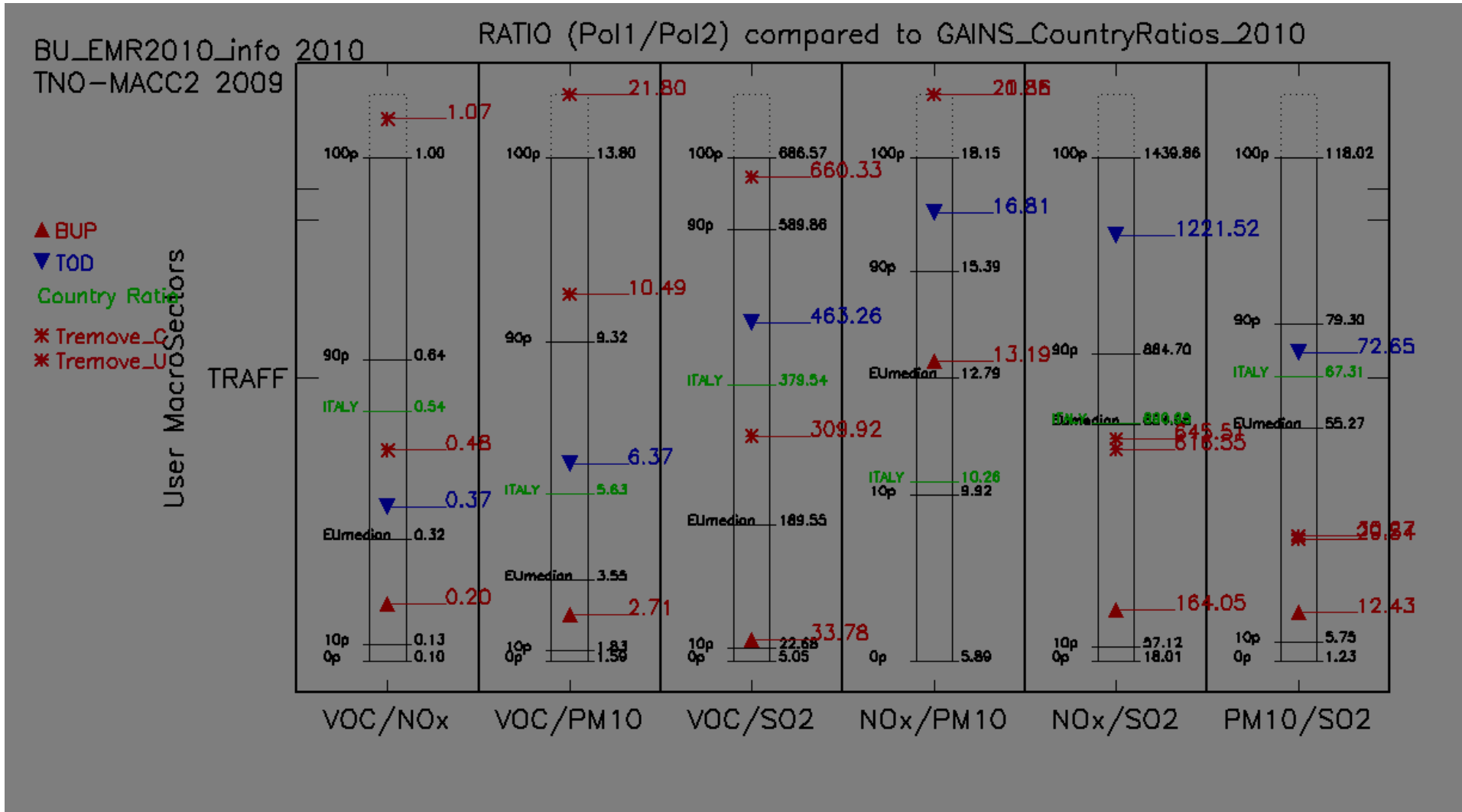
Note the good agreement with agriculture NH3

# TD\_BU\_ratio DOMESTIC



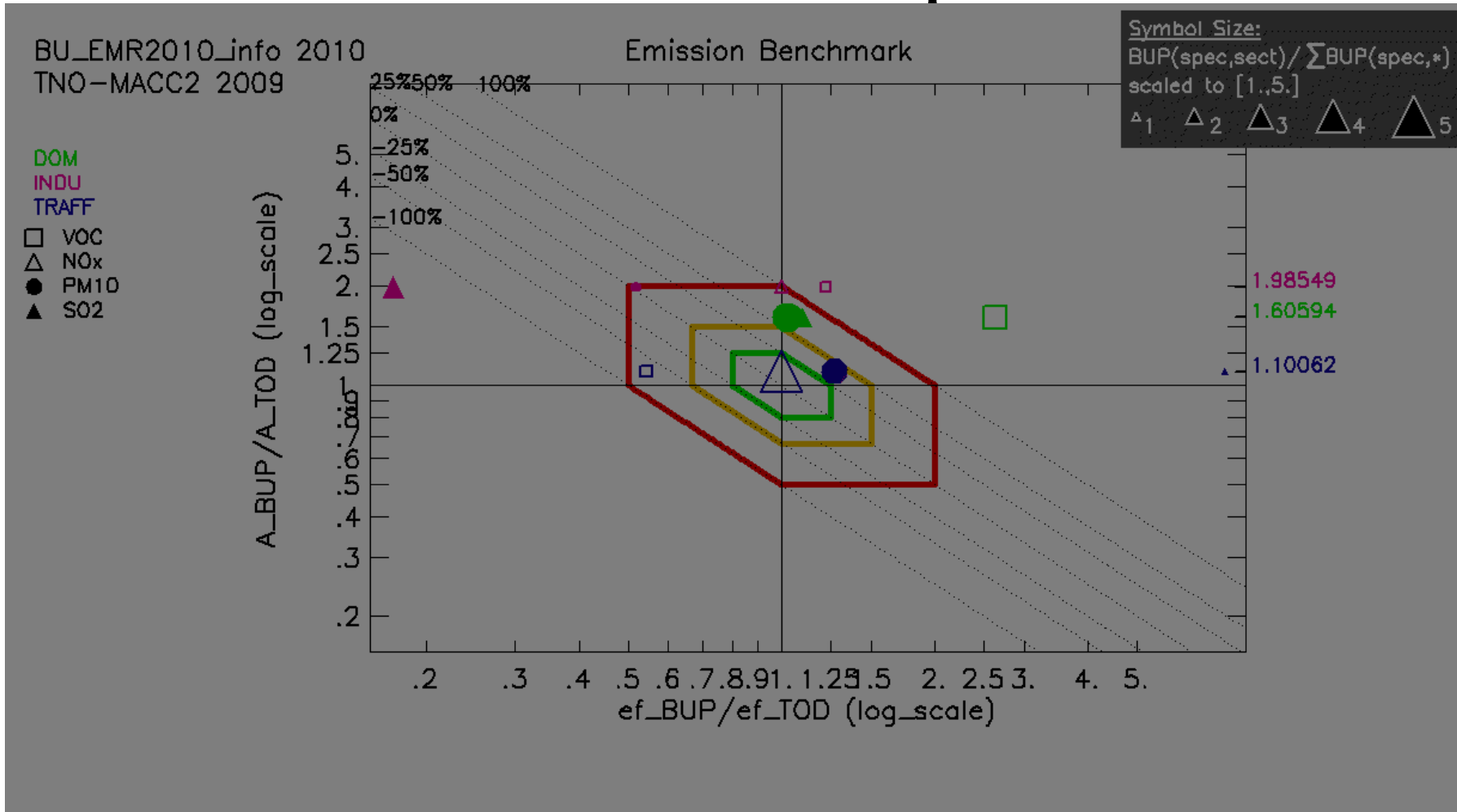
GAINS are more in line with TOD results than BUP ones for VOC ratio

# TD\_BU\_ratio TRAFFIC



NOX/PPM10 is very low compared with Tremove and TOD but is higher than GAINS national value. We have to investigate this result

# Diamond plot



Most of pollutant-sector comparisons lie inside the red diamond shape except for Domestic VOC, Industrial VOC and SO2. This distribution is in line with the ratio bar-plot

# Conclusions

- We need time to familiarize the tool to understand the results: the comparisons between inventories are not easy and there are not “a standard “ procedure.

- The My\_TOD option as well as the possibility to use not regular lat/lon grid are usefull. We will test these new features in future to compare regional emission inventory with national one

- In addition to papers we suggest a sort of check-list