***Peylin – questions related to the articles***

a) Peylin et al, 2012, ACPD:

Q2.2) What are the major sources of divergences between the different estimates of natural CO2 fluxes from the global atmospheric inversions? What are the typical spatial and temporal scales at which these inversions produce or do not produce robust estimates of the natural fluxes?

b) Lauvaux et al, 2012, ACP; Meesters et al., 2012, JGR:

Q2.2) What are the benefits of conducting inversions of natural fluxes at higher resolution (in space and time) and over regional domains? What are the new difficulties that this raises?

c) Duren et al, 2012, NCC; Mac Kain et al, 2012, PNAS:

Q2.3) What are the additional technical and scientific challenges that the estimate of anthropogenic CO2 fluxes raise for the regional inverse modelling? In addition to CO2 atmospheric mixing ratio, what type of measurements can be used to strengthen the inversion of anthropogenic fluxes ?