We thank Anonymous Referee #1 for the useful feedback. Here is a list of the referees' comments followed by our response (in italic):

The convergence observed during the recent years between urban and rural concentrations in the two European regions examined (in the UK and in Switzerland) leads to the conclusion that in fact the regional background particle concentrations are a very important factor in determining the particle concentrations even within urban areas in Northern and Central Europe. It should be added that this characteristic has been observed in the Eastern Mediterranean since the beginning of the atmospheric particle measurements there (e.g. Gerasopoulos et al., Atmos. Environ., 2006, Kalabokas et al, Gl. NEST J., 2010). Therefore, the air pollution from particles in urban areas in Europe is to a large extent a regional scale phenomenon and the pollution abatement strategies applied in the European continent should take this into serious consideration. I think that the above aspect has to be more emphasized in the text.

It is indeed the case that PM concentrations at the Harwell and Bloomsbury sites and the Payerne and Basel sites converge (Table 5). In addition, $PM_{2.5}$ concentrations at Payerne and Basel sites have a relatively strong year-to-year variability, which is similar at both sites (Fig. 6). We therefore agree that there is evidence indicating that regional background PM concentrations are an important factor affecting concentrations in urban areas. We will highlight this in the text as well as the fact that our findings are in agreement with the findings of Gerasopoulos et al. (2006) and Kalabokas et al. (2010) for the Eastern Mediterranean.

I would suggest that the link between prevailing wind direction and particle concentration has to be more closely associated with the corresponding weather patterns. Concerning the weather patterns (GWL) leading to high PM concentrations, I think that it would be more helpful if the selected GWLs are separated into more homogenous subgroups. For example, as observed in the mentioned reference (Gerstengarbe et al., 1999) the high-PM GWL could be separated into three subgroups with short names A, T and Z (p.22, Tab.4). These subgroups correspond to atmospheric synoptic circulation types with different influence mechanisms on air pollution (cyclonic or anticyclonic synoptic atmospheric conditions). It would be more useful to make the corresponding statistics for each GWL-subgroup (as in Fig. 7) and then examine the influence of the prevailing wind direction on the observed atmospheric particle concentrations (as in Fig. 4). Alternatively, the frequency of occurrence of each GWL subgroup should be reported for every year of measurements and include this information in the trend analysis of PM (Fig. 6) as well as in the examination of the wind direction influence on atmospheric particle concentrations (Fig. 4).

The influence of GWL on PM trends has been taken into account to some extent by using the GWL variable in the generalised additive models. For stations where GWL was found to be an important explanatory variable, PM trends have been adjusted for its influence (Fig. 5). However, the influence a certain GWL will have on PM concentrations depends strongly on the site. GWL WZ for instance is categorised as a cyclonic synoptic pattern. By examining the description and the sample map for WZ in Gerstengarbe et al. (p. 11 and 111 respectively) it is evident that on a day where WZ is present, there will be cyclonic conditions at the Harwell site but not cyclonic conditions at the Penausende site. This problem will persist if we lump cyclonic and anti-cyclonic patterns together as suggested by Anonymous Referee #1. Therefore, we do not consider an analysis in terms of cyclonic and anti-

cyclonic GWL to be appropriate. The 'high-PM GWL' variable, although it has a somewhat complicated definition is an attempt to address this issue (among others): a different set of GWL favouring high levels of PM are selected for each station. Table 1 shows which GWL are chosen as high-PM GWL for each station. We suggest we provide this table as supplementary material of the manuscript.

Figures 6 and 8 should be better plotted in the same scale.

This will be corrected.

Table 1. GWL favouring high levels of PM for each site.

Site	GWL favouring high levels of PM
Basel	WW, SWA, NWA, HFZ, SEZ, TRW
Bloomsbury	WA, WW, SWA, HNZ, HB, TRM, HFA, HNFZ, TRW, U
Harwell	WW, HNZ, HB, TRM, NEZ, HNFZ, SEA, TRW, U
Illmitz	WW, NWA, NZ, HNZ, HB, HNFZ
Langenbruegge/Waldhof	WA, NWA, NWZ, HNZ, HB, HNFZ, SEA
Payerne	WS, WW, SWA, NWA, HNZ, HFZ, HNFZ, TRW
Penausende	HM, TM, NEZ, SEZ