**Interactive comment on** “Meteorology applied to urban air pollution problems: concepts from COST 715” *by B. Fisher et al.*

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- The abstract is not really an abstract and should be reformulated. It is vague and does not give a clue to the potential reader about what the paper is all about. It is more like an introduction but it also includes some conclusions. - Intro §1, 1st parag: an additional sentence should make the transition between 1st and 2nd sentence, e.g. by explaining why the COST mechanism was applied or suitable for this topic. At the end of §1, a rough plan and intentions of the paper should also be introduced. - §2, parags. 2-4 are out of context and should be replaced by more relevant considerations on urban specific problems. Sections 2 and 3 could be merged: complexity+dynamics: what are the challenges and gaps in knowledge. - In connection with §1-2, there are
4 figures which are rather similar and thus overlap. Additionally they contradict each other: mixed layer vs. log-layer. Figures 5-6 also have the same type of information. Thus, prepare only 1-3 figures with dedicated descriptive and demonstration goals that would do for the whole paper. - Section 6 contrasts very much with the rest of the paper: it shows a method with clear scientific demonstration. On the other hand, all other sections are very general and are meager with actual and clearly described scientific results. This imbalance should be somehow corrected. - §6, line above Eq(2): Raupach et al not in the ref list - §6, line above Eq(4): Bottema (1995) missing from references - §7, Craig & Borsnstein (2003). In the ref. list it is 2002 (?) - §8, the 4 WG's should be more clearly distinguished with, e.g., bullets. - Fig. 2: references are missing

Typos: §2, 4th line: dot between scales and However §2, last parag.: semicolon between the 2 references Karppinen et al., delete commas after Karppinen. In the ref. list add a and b after the year 2000 for these 2 papers. The 3rd author of Karppinen et al 2000b is Elolähde §5, 3rd parag.: Davenport et al. Not all the authors. §5, 5th parag, 6th line: delete dot after sub-areas §7, 4th line from bottom: Moreover §8, WG2 name is most probably: “The thermal structure of the surface layer and the boundary layer height”. Reference list: inverse order of the 2 Grimmond et Oke’s paper (chronological)