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### **Proposed contributions to MetNet:**

(1) Study of turbulence and dust-lifting.

I've been studying this for some time now: this would have been the primary focus of my work with Beagle 2, and is the main scientific investigation I am planning to conduct with ExoMars AEP. With the MMPM payload, I'd study the temperature profiles and turbulent spectra (of the air temperature data) in order to model the boundary layer turbulence, and relate this to airborne dust concentrations as measured by the spanish sensors.

(2) Liaison with ExoMars AEP, in particular operations planning and cross-calibrations of sensors, to ensure that the datasets are intercomparable and allow network science to be performed.

(3) A third possible contribution would be to perform CFD modelling of flow around and above a MetNet lander. This would be allow us to evaluate the interference caused to temperature measurements due to having a hot (radioactively heated!) lander body below. We will probably be performing such CFD studies in Oxford for ExoMars, so it would be relatively obvious to perform this modelling for the MetNet stations as well.

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