International Brokerage Event Brussels, 26-27/10/2017



# Manchester Metropolitan University Professor David Raper d.w.raper@mmu.ac.uk

### **Description of the Organization**



- Manchester Metropolitan University is one of the largest in the United Kingdom
- Centre of Air Transport and the Environment(CATE) has significant experience of European funding for research in areas aligned to this call:
- ECATS
- ITAKA
- AERONET
- FORUMAE
- TeamPlay
- AERO2k

### **Description of the your research interest**



- We have significant experience in airport environmental sustainability with specific expertise in air quality and noise.
- Our interests with respect to this call are to
  - assess and understand the impact of aircraft operations within the Landing Take-Off Cycle on local and regional air quality
  - Assess and understand the emission and formation of particulate matter in the nanometer range
  - Assess and understand the impact that aviation fuel composition (alternatives) may have on airport air quality
  - Provide data, information and assessment to manufactures, operators, airport authorities to help the development of reduction strategies
  - Understand the health impacts of aviation emissions
  - Public engagement

#### LC-MG-1-1-2018: InCo flagship on reduction of transport impact on air quality Airport Air Quality



- Objectives:
  - to measure emission at the exit of the engine and in the near field with specific reference to volatile (gaseous and PM) and nvPM. In test cell conditions. Test cell will simulate a range of operating conditions.
  - To measure plume composition and dispersion in case study airports across the LTO
  - To provide quality data to assess the human health impacts of aircraft engine emissions
- Expected results
  - Better understanding of PM emissions from aircraft engines
  - Improved modelling capability to to describe the physical dimensions and initial dispersion characteristics of the aircraft exhaust plume and model the formation of particles as well as gas-phase chemistry

### Consortium - profile of known partners (*if any*)



No	Partner Name	Туре	Country	<b>Role in the Project</b>
01	INTA	RTD	Spain	Test cell. Measurements/co- ordination
02	MMU	UNI	UK	Modelling, Airport impacts
03	Manchester University	UNI	UK	Measurements
04	Rolls Royce	IND	UK/	Engine and measurements
05	Cardiff University	UNI	UK	Measurements
06	ONERA	RTD	France	Modelling, Measurements
07	Zurich Airport	IND	Switzerla nd	Airport
08				



No	Expertise	Туре	Country	Role in the project
01	Local and regional modelling	SME	EU	Including plume module in to airport and regional models
02	Manufactures of PM sensors	Ind	US	to evaluate the spatial distribution of PM
03	Airports	Ind	CELAC	For oversight and measurements
04				
05				
06				
07				
08				

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# **Recommendations**



- The presentation has to last up to 4 minutes (maximum)
- Do not overload your slides
- Provide weblinks to additional material
- Slides should be in English
- Do not use videos etc. they might be not supported by the Infoday IT system
- Send your presentations in PDF format to: <u>CoF2017@turkeyinh2020.eu until 10</u> <u>October 2017</u>