

Application Form

Joint TRANSITION-BioAirNet

Discovery & Innovation Grant

www.transition-air.org.uk

www.bioairnet.co.uk

Please return your completed application form to

**info@transition-air.org.uk** by **12 noon 31st Oct 2022**



Background

The TRANSITION Clean Air Network (www.transition-air.org.uk) and BioAirNet (www.bioairnet.co.uk) held a joint workshop on 18th Jan 2022, *Future mobility beyond COVID-19 – two steps forward, one step back for clean air and public health*. The slide deck is available at <https://transition-air.org.uk/events/joint-transition-bioairnet-workshop-jan-2022/> . In response to the workshop, we are now inviting applications for a £20k (80% FEC) Discovery & Innovation Grant. Just one grant will be awarded to a single project addressing both networks’ remits, focusing on exposure to both chemical and biological aerosols in a public transport environment (see below for full details of the brief). To apply, please complete this form and return it to info@transition-air.org.uk by 12 noon 31st Oct 2022.

This is an ‘open call’ for applications: anyone from an organisation normally eligible for UKRI funding can apply, subject to standard UKRI terms and conditions, but any one organisation can only submit one application. For eligibility, please refer to <https://www.ukri.org/apply-for-funding/before-you-apply/check-if-you-are-eligible-for-research-and-innovation-funding/who-can-apply-for-funding/#contents-list> . For URI terms and conditions, see <https://www.ukri.org/wp-content/uploads/2020/10/UKRI-201020-full-economic-costing-grant-terms-and-conditions-March-2020.pdf> .

Brief

* Applications are sought for a proof-of-concept project to develop a capacity (technological and/or methodological) to assess the efficacy of one of more potential mitigations of exposure to both chemical and biological aerosols in a public transport environment.
* Said capacity should provide a clear pathway towards a solution to a specific industry need for COVID-19 recovery in the public transport sector (i.e., increased use of public transport, leading to increased revenue, enabling and/or accelerating cleaner fleet renewal).
* This capacity may comprise measurements and/or numerical modelling, but must address exposure to all three categories of pollutant below:

(1) Conventional gas-phase pollutants (NOx, CO2, VOCs etc)

(2) Transport-derived, non-biological particulate matter (PM)

(3) Biological aerosols\* (including bioPM and exhaled droplets)

\*Aerosols or airborne particulate matter of biological origin (e.g., bacteria, viruses, fungi, pollen)

* As a proof of concept, this capacity should include – or at very least not preclude future inclusion of – chemical interactions between (1), (2) and (3) above.
* Applicants should specify the public transport environment (in-vehicle or transport hub), at which their mitigation-assessment capacity is targeted; e.g., ‘onboard an electric bus’ or ‘in a train station waiting room’.
* Applicants should also specify the potential mitigation(s), the efficacy of which their capacity is designed to assess. Potential mitigations may be technological, regulatory or behavioural in an effort to reduce emissions of, and/or exposure to, all three categories of pollutant listed above; i.e., potential mitigations of, for example, only (1) and (2) but not (3) are not sufficient.

Outputs

We recognise that the nature of the outputs will reflect the nature of the proposed project but, at minimum, these should include:

o Full Project Report – made freely and publicly available

o 1-page Fact Sheet – made freely and publicly available

o All measurement/modelling data should also be made freely and publicly available via a public dataset at the Centre for Environmental Data Analysis (CEDA) Archive; for more information, please see https://archive.ceda.ac.uk

o Presentation by lead applicant at a joint TRANSITION-BioAirNet event in 2023

Timescales

The project must be completed (i.e., all outputs delivered) between 1st Jan and 30th Jun 2023. Meanwhile, the deadline for applications is 12 noon 31st Oct 2022 and we will let you know the outcome of your application by end of Nov 2022; we may ask you for further information/clarifications in the process of assessing your application. If successful, we will work with you to have a contract in place for you to begin by 1st Jan 2023.

Administration

The project will be administered by the University of Birmingham, in partnership with Cranfield University. For any queries, please contact [info@transition-air.org.uk](mailto:info@transition-air.org.uk) .

Title

Please enter the title of your project (up to 250 characters)

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| Type Here |

Team

Please enter details below of Lead applicant and Co-applicants (where relevant)

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| --- | --- | --- | --- | --- | --- |
|  | First name | Last name | Organisation | Position | Email |
| Lead Applicant | Type Here | Type Here | Type Here | Type Here | Type Here |
| Co-applicant 1 | Type Here | Type Here | Type Here | Type Here | Type Here |
| Co-applicant 2 | Type Here | Type Here | Type Here | Type Here | Type Here |

Please list below all other organisations involved in your project (up to 250 characters)

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| Type Here |

Duration

Please start by specifying the start and end dates of your project

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| --- | --- |
| **Start date (no earlier than 1st Jan 2023)** | **End date (no later than 30th Jun 2023)** |
| Type Here | Type Here |

Summary

Please provide a non-technical summary of your project, which you would be happy for us to publish on both TRANSITION’s and BioAirNet’s websites (up to 1500 characters)

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| Type Here |

Key Characteristics

Please identify here the key characteristics of your proof-of-concept capacity to assess the efficacy of mitigations of exposure to both chemical and biological aerosols in a public transport environment.

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| --- | --- | --- | --- | --- | --- | --- |
| Nature of project: | | Technological Or Methodological? | | **Nature of capacity:** | Measurements And/Or Modelling? | |
| Industry need for COVID-19 recovery being addressed: | | Type Here | | | | |
| Do you address ALL three categories of pollutant? | | 1. Conventional gas-phase pollutants (NOx, CO2, VOCs etc) | | | | Yes Or No? |
| 2. Transport-derived, non-biological particulate matter (PM) | | | | Yes Or No? |
| 3. Biological aerosols (incl. bioPM and exhaled droplets) | | | | Yes Or No? |
| **Public transport environment:** | | | Type Here | | | |
| **Mitigation(s):** | Type Here | | | | | |

Objectives and Outputs

Referring to the key characteristics above, please outline how your project will address each of the six bullet points in the Brief on page 2 (up to 3000 characters), including:

* Clearly defined objectives
* Specific outputs that will deliver on these objectives

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Milestones

Please clearly define 4-5 milestones, including dates and a summary of what will have been achieved by each one and how you will know you have reached it (up to 2000 characters)

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| Type Here |

Gantt Chart

Please include a Gantt chart or similar to illustrate the breakdown and sequencing of your project, including any inherent dependencies. The easiest way to include this is, last of all, save your completed Application Form as a PDF, and append to this a PDF of your Gantt Chart. If you experience difficulties doing so, simply attach it separately to your submission email.

Impacts and Beneficiaries

Please describe the following here (up to 3000 characters):

* What the intended impacts of your projects are, what routes to you identify to achieve these impacts, and how will you evidence that they have been achieved?
* What (non-academic) stakeholders, communities and/or sectors of society will benefit?
* Could there be any negative impacts from this project, or inequalities with regards to the positive impacts it delivers (e.g., with respect to different genders; ages; ethnicities; physical and mental abilities; etc) and, if so, how will these be avoided?

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Follow-on Work

As this project is a proof of concept, please describe how you intend, or you expect others, to take your concept forwards and on what timescales (up to 1000 characters)

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| Type Here |

Deliverability

Please outline here how the Project Team has the necessary expertise, track record and contacts to carry out the project and deliver all outputs on time (up to 1000 characters)

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| Type Here |

Budget and Justification of Resources

Please itemise below the full economic costs (FEC) of your project. These should add up to the ‘TOTAL FEC’ (max £25k), of which you can apply for funding up to 80% (i.e., max £20k). ‘FUNDING SOUGHT’ should thereby be equal to 80% of ‘TOTAL FEC’ and not exceed £20k.

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| --- | --- | --- |
| **Directly Incurred FEC** | Staff | Type Here |
| Consumables | Type Here |
| Travel and subsistence | Type Here |
| **Directly Allocated FEC** | Estates | Type Here |
|  | Infrastructure technicians | Type Here |
| **Indirect FEC** | All other costs | Type Here |
|  | **TOTAL FEC** | Type Here |
|  | **FUNDING SOUGHT** | Type Here |

Please elaborate on the breakdown of your budget above, providing brief justification of why these resources are necessary and sufficient (up to 1000 characters)

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| Type Here |

Additional Resources

Please describe here any and all additional resources leveraged in your project (i.e., besides those costed in your itemised budget above) adding ‘value for money’ (up to 1000 characters)

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| Type Here |

Intellectual Property (IP)

Please describe below any IP on which your project relies (up to 1000 characters), including: do you own that IP, do you require anyone’s permission to use it, and does your project require or imply any changes to the ownership of that IP?

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| Type Here |