**CALL FOR EXPRESSION OF INTEREST**

**Vodafone Foundation (UK registered charity, number 1089625) has published a Call for Expression of Interest with an aim to appoint a research partner for the preposition of the DreamLab app to support climate research.**

**What is the DreamLab app?**

DreamLab is a specialist app that uses the processing power of smartphones to help analyse complex data while their owners sleep, to speed up cancer and coronavirus research. While traditional experimental research and standard research methods could take years to develop, the mobile cloud-based processing approach of DreamLab can drastically reduce the time taken to analyse the huge amount of data that exists. A desktop computer running 24-hours a day would take decades to process the data, but a network of 100,000 smartphones running overnight could do the job in just a couple of weeks. No personal data is downloaded to or processed from the user’s device.

**Why do we need DreamLab?**

Medical research currently generates huge volumes of health data around the world every day, but access to computing power to crunch and make sense of this data is limited. Your mobile device contains a huge amount of computing power needed to run everything from email to music and video streaming apps but is mostly dormant while you plug it in to charge overnight. DreamLab harnesses this processing power of yours and thousands of other mobile phones, to examine such health data to look specifically at how existing drugs can be repurposed to help in the fight against cancer and COVID-19.

**Where is DreamLab available?**

Two million people worldwide have downloaded the DreamLab app in 17 countries (Australia, Albania, Czech Republic, DRC, Germany, Ghana, Greece, Ireland, Italy, Lesotho, Netherlands, New Zealand, Portugal, Romania, South Africa, Spain and the UK).

**What research has DreamLab facilitated?**

Traditionally, DreamLab has helped identify potential treatments to help in the fight against cancer. Important findings have already been made from this research (for example, that hundreds of anti-cancer molecules exist in everyday foods including oranges, cabbages and grapes). More recently, Vodafone Foundation added a research project focusing [on COVID-19 treatment](https://www.vodafone.com/news/press-release/vodafone-foundation-imperial-college-london-team-up-with-dreamlab-against-coronavirus), helping scientists identify existing drugs and food-based molecules that could help fight the virus.

**How Dreamlab technically works**

A DreamLab research project always consists of two types of data: Packages and Datasets. Each Package is combined with each Dataset by the app. Each of these combinations makes up one calculation from a user’s perspective. The DreamLab backend creates one Queue for each Package and fills it with Datasets to be combined with this Package. One Queue exists for each ‘active’ package. When a user’s DreamLab app starts processing, the app will first fetch one of the active Packages, and then a Dataset from the Queue relating to this Package. It will perform the calculation with this Package and Dataset combination and then return the result to the backend. It will then fetch the next Dataset from the same Package Queue and repeat the same steps.

* Packages are large files (up to 4MB gzipped).
* Datasets are small files (up to 300KB gzipped).
* Datasets should have a significantly larger file count than packages (~1/1,000,000+)

Note: The current algorithm conforms to ISO C++98, however we are open to converting the language to suit your technical requirements if necessary (such as Python language).

**The future of DreamLab: Climate**

As of October 2021, Vodafone Foundation are looking to launch an additional project onto Dreamlab, which will focus on climate research, whilst continuing to expand the number of dreamers worldwide. Vodafone Foundation are searching for organisations who meet the following criteria:

* Climate research project is technically compatible with DreamLab
* The research project requires large amounts of processing power to analyse computational data
* Research project is addressing a specific climate related issue that appeals across the 16 countries currenting hosting the DreamLab platform.

**TO SUBMIT AN EXPRESSION OF INTEREST TO PARTNER WITH VODAFONE FOUNDATION ON THE DREAMLAB APP CLIMATE PROJECT, PLEASE DOWNLOAD AND FILL OUT THIS FORM. APPLICATIONS MUST BE SUBMITTED BY TUESDAY 30TH NOVEMBER 2021.**

**Please send application form to:** SubmissionsDreamLab@vodafone.com

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**About Vodafone Foundation:** Vodafone Foundation (UK registered charity number 1089625) believes the power of connectivity can change lives and address some of the world’s most pressing problems. Founded in 1991 with a simple mission to invest in the communities in which Vodafone operates, today the charity connects people and ideas with technology and funding, to help those already doing good work to achieve results faster, more cost effectively and with a bigger social impact. Through a strategy of Connecting for Good, Vodafone Group PLC’s philanthropic arm works in partnership with other charitable organisations and NGOs to create solutions that bring about long-term sustainable change and improve 480m lives by 2025.

**DREAMLAB CLIMATE PARTNER APPLICATION FORM**

Name of your institution

Main point of contact

Name of research programme

In no more than 100 words, please explain how DreamLab would help your research programme