

A UK manufacturer of precision low-cost air quality monitors is looking for distributors in international markets

Summary

Profile type

Business request

Company's country

United Kingdom

POD reference

BRGB20230724012

Profile status

PUBLISHED

Type of partnership

**Supplier agreement
Commercial agreement**

Targeted countries

• World

Contact Person

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Term of validity

**24 Jul 2023
23 Jul 2024**

Last update

24 Jul 2023

General Information

Short summary

South Coast Science manufactures precision air quality monitors, with data quality validated by independent authorities. Through development of machine learning algorithms, they offer affordable devices that provide indicative PM & gas data, with a goal to achieve reference-level data from these same instruments. Their products are designed for urban, roadside, & construction site (dust) monitoring, with a roadmap including indoor air quality & odour monitoring in the wastewater treatment sector

Full description

The company was founded in 2016 with the mission of developing a new breed of low-cost instrument for the supply of air quality data. Whilst reference grade instruments remain the legislative standard, through the combination of their own machine learning skills and working closely with UK sensor supplier Alphasense, they now offer instruments with unparalleled precision. Developed in collaboration with the United Nations Environment Program in real-world conditions, the products have performed continuously with limited support in the harshest conditions. Their grounding in the real world has been achieved through long-term relationships with numerous universities and research organisations and their mission at this phase of the company's existence is to develop machine learning models for all popular air quality pollutants. The company's modest production levels to date reflect this process, but this results in an opportunity for new customers and partnerships around the world who are eager to take advantage of their scientific approach.

Recent applications include offshore wind turbines, traffic analytics, vehicle exhaust extraction systems as well as multiple applications within the construction and mining industries. Distributors have now been established in eight countries leaving room for significant further expansion.

To validate data correction work, they have undertaken MCERTS certification. This provides for the certification of products according to the UK's Environment Agency's performance standards, based on relevant CEN, ISO and national standards. Additionally, for four years the company has collaborated with global environmental engineering consultancy Ricardo PLC which has provided access to government air quality reference stations in the UK. The 'AURN' (Automatic Urban and Rural Network) is the UK's largest automatic monitoring network and is the main network used for compliance reporting against the Ambient Air Quality Directives.

Other features include:

- 100% manufactured in Britain - quality embedded within our products
- Leading sensor technology - we use only Alphasense gas and particulate sensors
- Software updates - over-the-air updates keep device firmware current
- High-quality data interpretation - achieved in real-world conditions (not in a lab)
- Worldwide experience - Praxis products have been deployed successfully around the world

The company's ultimate goal is to provide expertise and software to service customers globally and their strength comes from studying their own devices in field conditions, through incremental engineering improvements. Every device ever made is monitored 24/7, which results in a product that more than fits the brief for a precision product providing robust data. The company is looking for suitably qualified partners who will recognise this opportunity to build on their own product portfolio with a truly innovative solution for air quality monitoring.

Advantages and innovations

Four years ago South Coast Science set out to develop a new breed of low-cost monitoring instrument for the supply of precision air quality data. The aim was to match reference-grade data, but unlike other manufacturers in this industry, they developed software to remove the effects of temperature and humidity, which are long-known (but little-understood) issues that have plagued traditional low-cost devices. Instead of incorporating inbuilt air conditioning which adds weight, cost and increased power demand (used to stabilise the air prior to measurement), the company's own unique correction algorithm ensures the device is not affected by the environment in which it has been deployed.

Having initially developed the device for use throughout various African countries and now used in other extreme environments such as Alaska, where temperatures drop as far as -40degC, they are confident that the work done to protect against harsh environments makes it suitable for use in multiple applications. Through a unique data correction process and a policy of data transparency, users and external specialists are able to interrogate and validate the data provided by the system. To this end, South Coast Science has developed an open-source platform that allows customers to do their own checks.

Technical specification or expertise sought

Distribution

Stage of development

Already on the market

Sustainable Development goals

• Goal 11: Sustainable Cities and Communities

IPR Status

Partner Sought

Expected role of the partner

South Coast Science expect our partner to be working within the air quality industry as a supplier of instrumentation or consulting services or similar and looking to add a precision ambient monitor to their portfolio. South Coast Science expects anyone with whom they work to understand the competitive landscape and want to add an industry-leading product based on technological advantage. The partner should be looking to increase their foothold in the air quality industry, through their ability to sell Praxis products into industry, as well as academia. The partner should already have a significant sales network in their own domestic market and see this opportunity to develop deeper relationships with existing customers, as well as with new customers.

Type of partnership

Supplier agreement

Commercial agreement

Type and size of the partner

• **SME 50 - 249**

• **SME 11-49**

• **Big company**

Dissemination

Technology keywords

Market keywords

• **08004001 - Air filters and air purification and monitoring equipment**

Targeted countries

• **World**

Sector groups involved

• **Electronics**

• **Digital**