

# AID DETAILS

## BILATERAL AID

### Introduction of the production and use of the Slovak lung ventilator Q-vent for "bridging" therapy of patients with COVID-19

#### General Information

|                                |   |
|--------------------------------|---|
| Funding entity                 | Slovak Aid  |
| Recipient Country              | Kenya   |
| Implementing Organization      | Prírodovedecká fakulta UK   |
| Implementing Organization Code | University, college or other teaching institution, research institute or think-tank |
| Geo Location                   | Republic of Kenya, KE   |
| Longitude                      | 38.0  |
| Latitude                       | 1.0   |
| Start of Commitment            | 2021-08-18  |
| End of Commitment              | 2023-07-31  |
| Currency                       | EUR   |
| Status                         | OECD approved   |

#### Description

Due to the extensive health and economic consequences of the coronavirus (COVID-19) crisis, an alternative Q-vent lung ventilator was developed in early 2020 by a scientific team of medical, natural sciences and technology experts. The device is primarily intended for bridging therapy of the pulmonary form of COVID-19 in places where conventional pulmonary ventilation is not available or during transport. The secondary designation of the device is beyond the scope of the coronavirus crisis, for respiratory support of patients during simple procedures such as appendectomy and caesarean section, but also injuries caused by accidents. The project aims to significantly mitigate the consequences of the humanitarian crisis, to teach domestic workers in Kenya to produce this device on their own from available resources and to train medical and paramedic staff to operate it. Due to the Q-vent's cheap, modular, and pressure-independent design, it is possible to manufacture the device in Kenyan conditions. Special emphasis was given to design of components and support modules and thus, complete service and production of spare parts can be provided using 3D printers and materials available in Kenya. After introduction and learning of the full-production of the Q-vent to domestic experts, a team of local health professionals will be trained and then deployed in the target localities (hospitals) together with the Q-vent devices. Based on the facts above, the Q-vent device is a good and suitable candidate for deployment in the Kenya area. After teaching the domestic workers how to produce the equipment, it may even be a project beyond deployment in Kenya. Gender equality will be one of the main starting points for building a working team in Kenya. High mortality from various diseases in the area is largely associated with the unavailability of standard respiratory supportive care requiring high-pressure oxygen distribution. The Q-vent device can regulate the volume of the breath, the frequency of the breaths in the desired range and is also able to regulate the inspiration to expiration ratio. The response to waking up the patient is provided by a sensor that triggers an alarm. The response to possible increased lung

## Commitments and Amount Extended (EUR)

| Reporting Year | Commitments      | Amount Extended  |
|----------------|------------------|------------------|
| 2021           | 128 603 €        | 64 302 €         |
| 2022           | 0 €              | 51 441 €         |
| <b>Total</b>   | <b>128 603 €</b> | <b>115 743 €</b> |

## Sectors share

| Sector name      | Share   |
|------------------|---------|
| Medical services | 100.0 % |

## Statistics

Statistics show the proportion of the Introduction of the production and use of the Slovak lung ventilator Q-vent for "bridging" therapy of patients with COVID-19 project compared to the implementing subject and the type of flow

All Countries

All Flows

All Funding E...

Comparison based on the region



Introduction of the production and ...

Other filtered aid