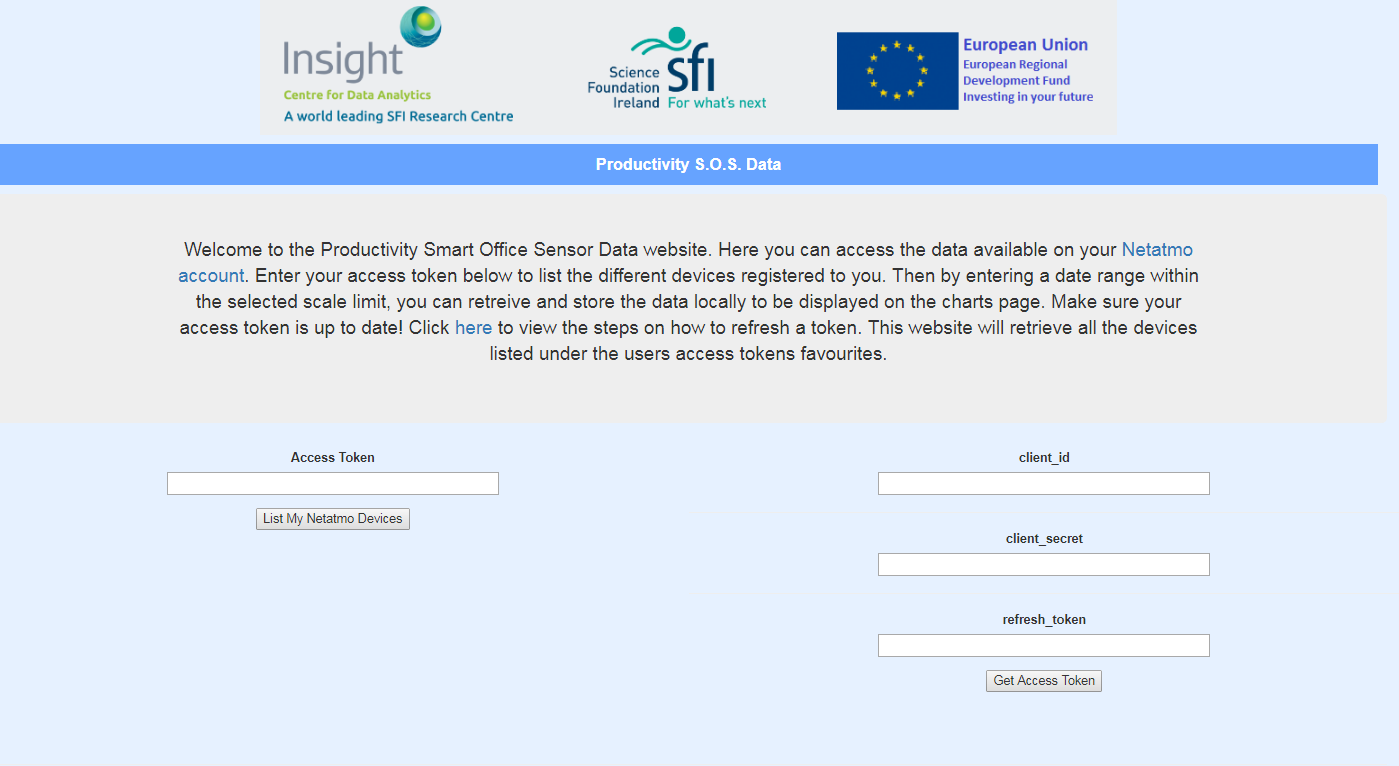
User case guide to Productivity Smart Office Sensor Data

The first page the user will see is shown below in Fig 1. Here the user can enter an access token to retrieve a list of the devices available for that token. If a use does not have an access token one can be generated by filling out the user details to the right. Both sections will send a RESTful API to Netatmo.



**Fig 1**

Once a valid access token has been entered and a list of devices is returned successfully from Netatmo, the data is then populated to a table (See Fig 2). Along with a list of devices a setup date and a last record date will also be shown for each. This is to guide the user when choosing what dates to download for the devices. Along with choosing a date the user can also decide the scale or interval between each reading. This will dictate the number of days a user can download as the more readings there are per day, the fewer days that can be downloaded.

When valid dates have been entered and a scale selected then the sensor data can be downloaded. As the data for each device is retrieved and stored in the local database, a message will be populated below the table for each device. If one device returns no data then a message is returned in red. This is also demonstrated in fig 2.

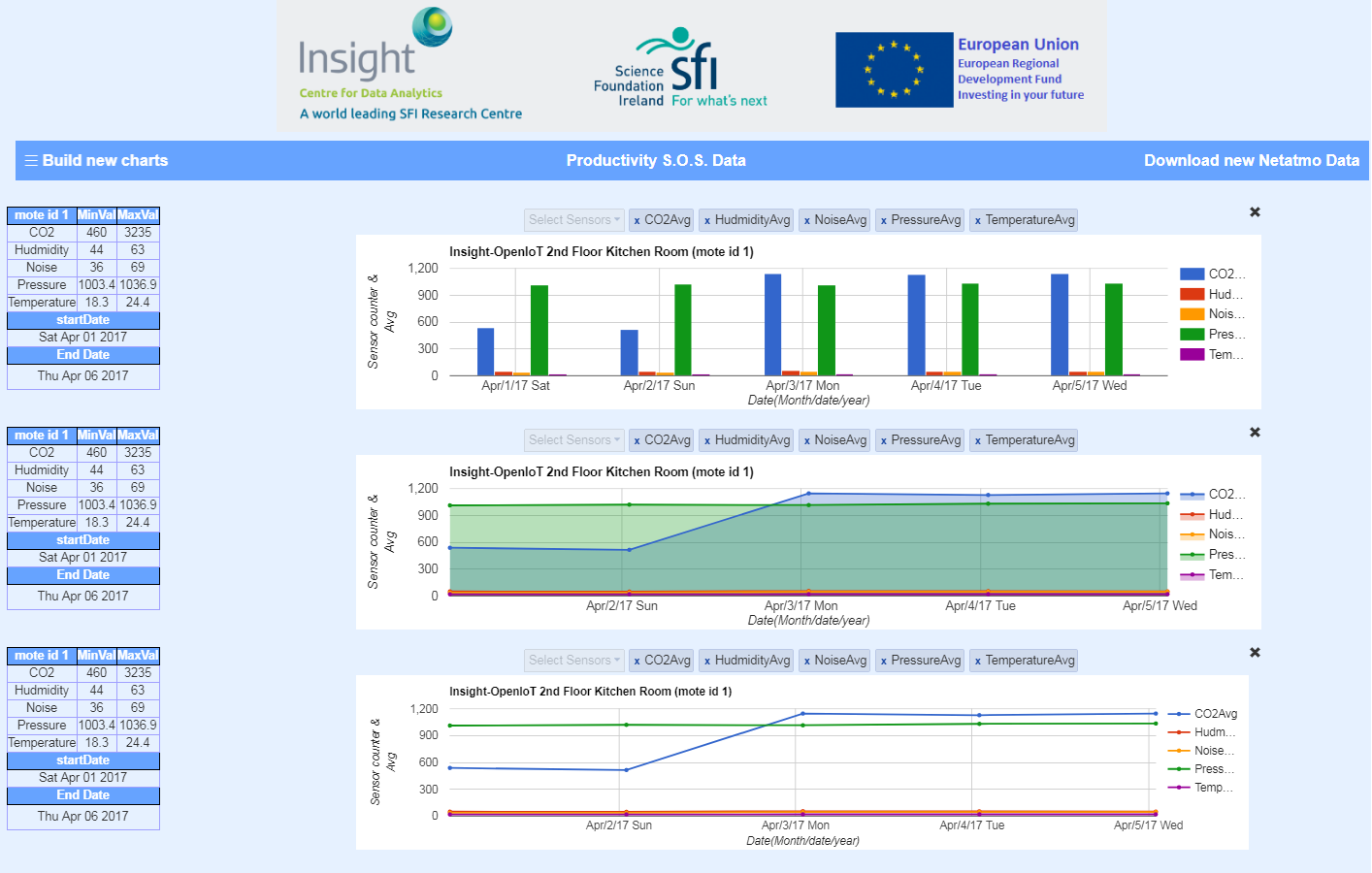


**Fig 2**

Finally a button labelled “Go to Charts Page” will be available to click. This will redirect the user to the next page where he/she can view, edit, create and remove charts for different devices. By default there are three charts on display. Each one is of the first device on the list with five days of data from the first available day. Each chart is set to show the three different types of charts available, Bar, Area and Line charts. (See Fig 3)

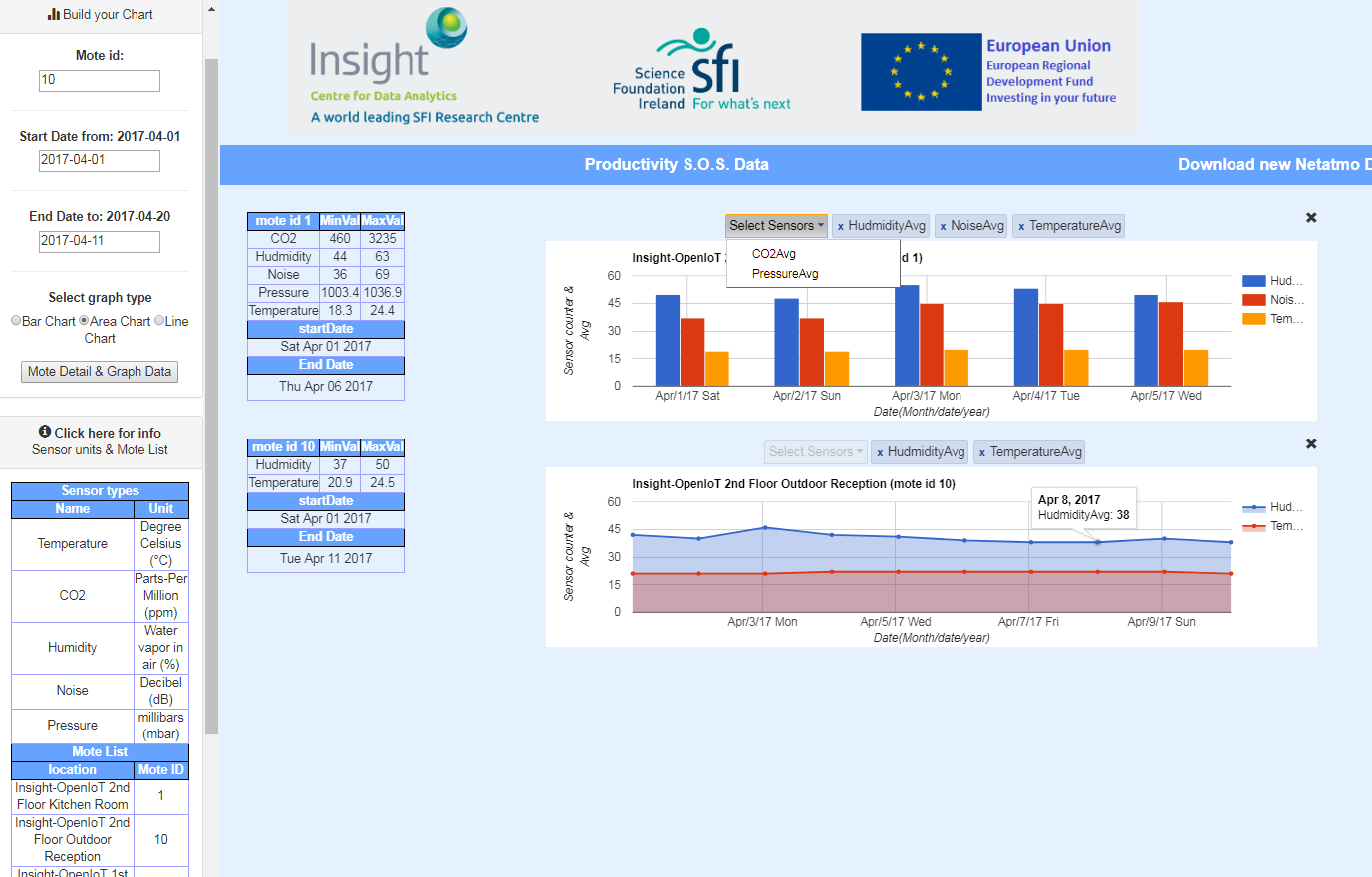
To the top left of the page is a link to open the build section. This can be hidden again by clicking on the “X” icon located on the top of this section. Below the input fields are two tables. One table shows the user all the sensor types and there measurement units and another table list all the available devices and their respective locations. These tables are populated when the page loads by accessing the data on the local database.

To the top right of the page is a link labelled “Download new Netatmo Data”. This will take the user back to the first page where he/she can start over by entering a new access token to get new data.



**Fig 3.**

Once the user enters a mote id, start/end dates and selects from a list of three available options for a chart type, the user can then click on the button to fetch the data from the local DB. Two buttons, one to draw the graph and another to reset the options and start again, will appear on the page. Once the user hits the ‘Draw Graph’ button the chart will be displayed to the screen. To the left of the chart there will also be a table listing the details of the chart plotted. This will include a list of all the sensors for the given mote and there min/max values within the given dates.



**Fig 4**

In Fig 4 a bar chart and an Area chart are shown. Each graph has the option to remove/include different sensors to its display by clicking on the drop down list ‘Select Sensor’. Each time a sensor is removed or added the chart is redrawn. In Fig 4 above the bar chart has CO2Avg and PressureAvg removed. If the mouse is hovered over a data point in the chart it will display its details as in the Area chart for Arp 8th the Humidity Average was 38%.

A user can zoom in using their mouse wheel and scroll left or right to examine particular dates more closely. There is also the option to remove a chart from the dashboard by clicking on the X next to the desired chart. Any charts that are below the removed chart will be moved up in its place to keep a clean look to the page. In fig 3 the bar chart was removed.