Second-hand values of lithium battery e-bikes

First decide the lithium battery's probable life when new. Currently Li-ion batteries costing around £200 to £300 can be considered to have about two years life on average. Expensive batteries costing over £400 and LiFePO4 types can often last to three or more years. Therefore in the following first line of the text use half for the low cost first battery group or two thirds for that second battery group

One year old battery: Half/two-thirds the current replacement cost of a battery is established to give half/two-thirds value left.

In the following line use zero for the low cost group or one-third for the second battery group.

Two year old battery: zero/one-third value left.

For ages in between in each of the above cases, the price established should be pro-rata, and in cases where the battery has been replaced at some point, the same pro-rata rule can be used against it's age. Older than three years, no residual battery value.

The start point of the e-bike's separate value is established by deducting the current new battery price from the original purchase price and then a depreciation percentage is deducted in the same manner as for other vehicles, the initial depreciation quite high as is usual:

I year old bike: 25%
2 year old bike: 35%
3 year old bike: 45%
4 year old bike: 55%
5 year old bike: 60%
6 year old bike: 65%
7 year old bike: 70%
8 year old bike: 75%
9 year old bike: 80%

Then to the discounted price of the bike only, any residual value of the battery as established above is added back to give the fair second hand price. The percentage reduction scale is based on e-bikes in good condition for their age. Adjust prices downwards for poorer condition and upwards for excellent condition.