Beacon Pricing Revised

After further reviewing the pricing, we realised that we underestimated the total price lots more than anticipated. Since then we as a team has been talking to an entrepneur who works with battery powered thermometers. He went through the possible flaws in our plan and gave us a more robust approach of creating the beacons. He discussed features we overlooked in the initial project, leaving us three key points to further explore:

LoRa Data transmission:

This method of wireless data transfer would allow the device to transfer data at a very low bit rate, saving power and battery over time. Open source alternatives such as DASH7 could be used in future prototypes.

Packaging, assembly and R&D costs:

These factors were ignored during the initial price calculation as they can fluxuate massively. However that does not mean that these are insignificant figures. These factors should all be factored in to the estimated manufacturing costs to get an accurate price:

Solar Power:

Although we did not believe solar power would be applicable to our device, after further investigation we realised just how little power we needed to generate to operate the device, a small solar panel placed on top of the device may be able to recharge the battery, this could be especially useful if we opt to use a low polling rate back to our database. Meaning batteries could last for multiple years.

All factors considered, this is our new price estimate:

Part:	Price (€)
Housing/hardware	2.5
LoRa ranscevier	2.2
GPS	2
Microcontroller	0.5
Xtal + PCB	0.6
Battery connecter	0.1
MQ-7 Gas sensor	1.6
DHT11 Heat + Humidity sensor	0.3
Assembly + Quality Control	2
Packaging	0.5
Total	12.30

These figures do not include profits as it is yet to be decided how these devices are to be funded.