When it comes to sell-by dates most people fall in to one of two categories. Firstly there are the cautious ones who, if the sell-by date has passed, will bin the offending item no matter how fresh it still appears. The other group are the more devil-may-care type of eaters; the label says it’s out of date, but hey, if it both looks and smells ok then they’re willing to take the risk of consuming it. The majority of the time this second, common sense approach usually wins out and the meal is digested without a problem, although occasionally this disregard of the guidelines can backfire of course. If the cuisine actually wasn’t as edible as they thought it was an uncomfortable - and sometimes dangerous - battle with food poisoning can take place.

This Russian roulette way of cooking may soon have had its day however, if ARS Lab Ltd is able to bring its new device to fruition. Described by CEO Augustus Alesiunas as ‘the world’s first portable “electronic nose” ‘, ‘PERES’ functions by testing the air immediately around your poultry, fish, pork or beef and uses this information to assess whether it is still safe to consume or if it has started to deteriorate. It can also tell you if it has been left unrefrigerated and is therefore harbouring potentially unsafe germs. The handheld freshness tester is still a prototype at the moment but Alesiunas is hoping to harness the power of crowdfunding to raise enough money to develop it further before selling it commercially.

Alesiunas’ idea for a tool that was able to accurately calibrate the quality of meat and fish was born after his family suffered a bout of the aforementioned poisoning. The World Health Organisation states that there are over 200 diseases that can be carried and passed on via food and that a third of all people who live in an industrialised country are likely to suffer from a food-related illness every year. The Food Standards Agency estimates that approximately five and a half million people in the UK a year get food poisoning – with the vast majority believing that it was picked up from dishes cooked and eaten outside their own home.

After coming up with the basic concept for PERES ARS Lab joined forces with scientists at the National Innovation and Entrepreneurship Centre at Lithuania’s Kaunas University of Technology, with further assistance from the National Food and Veterinary Risk Assessment Institute. After a year the research team had developed the first iteration of the gizmo, which currently looks somewhat like a minimalist television remote control.

PERES identifies four things in the air sample: room temperature, ammonia, humidity and volatile organic compounds (VOCs), which occur around meat and fish that have started to go off. When the gadget is pointed towards the animal protein and its button is clicked the sensors inside get to work detecting the VOCs that encase the item in question. Over 100 are present, although only some are produced by the decomposition process – those are the ones that the machine analyses. PERES then recalculates the readings – using the information it has gathered on both the temperature and humidity of the surrounding atmosphere - and warns you if your would-be-meal is at its best or not.

Not just designed with home use in mind, the ARS Lab research team envisage users taking it with them on shopping trips, so that any meat or fish they fancy buying can be tested first to ensure that not only is it an appetising product but also that it hasn’t been left unrefrigerated at any time, i.e. that you can safely expect to tuck in with no risk of being poisoned by it. It’s handheld and would easily fit in your shopping bag along with your list, but is it likely that many people would feel brave enough to risk the glare of a supermarket employee as they wave their trusty machine over the delicatessen counter?

Once PERES has calculated the results then it will send detailed information directly to an app installed on your tablet or smartphone via Bluetooth; it’s compatible with both Android and iOS. You’ll receive all the information that it has obtained and a short summary of whether the food is fit for human consumption. An example of the kind of message sent: ‘The spoilage process of this sample has started, but the product is still fresh and safe to use.’

A slightly bizarre addition to the app is the social functionality; allowing you to post your results on Twitter, Facebook and Google+. This, according to getperes.com is so that users can ‘share and discuss their experiences with friends’. In a technological age where the majority of sites and apps encourage you to reveal all to anybody who cares to look then this is fairly understandable, but even so – is this the sort of thing anybody will want to shout about? It’s hard to imagine somebody picking up the device to test a bit of halibut that they’ve found in the back of the fridge, and being so impressed with the fact that PERES has told them it’s still safe to eat that they feel the need to tweet their followers about it…

ARS Lab’s crowdfunding effort on indiegogo.com only started very recently and they still have a long way to go in terms of fundraising, but Alesiunas is hoping that they will be on track to produce their final samples by November of this year. The public will be able to purchase PERES for £90 and it comes in a selection of five colours (white, black, pink, green and blue), so presumably he also had it mind that the user will enthusiastically match it to their kitchen, handbag or favourite supermarket brand as well.

PERES may indeed do what its makers say it can do; tech-obsessed individuals will enjoy this new layer of science to preparing a meal and there could well be a market for employing this gizmo anywhere that prepares food for public consumption to test its ability not to poison the customers. However, there will undoubtedly be a whole host of people who scoff at the idea of paying the best part of £100 for a device that does what their eyes and noses have been doing quite happily (and more importantly, for free) for many years already.