Synergy Project
Team 11 - SanAqua

SanAqua is a mobile app which addresses the time consuming act of counting in water quality testing. Up to now, many labs are forced to manually count colony forming units on a petri dish, which indicate water quality levels. 3.3% of global deaths are related to water quality and its contamination can cause more than 50 serious diseases

The app works by using the phone's camera to take images of each sample. An image processing algorithm then distinguishes each colony forming unit on the sample, counts them, and outputs the total number present on the petri dish.

This saves users time on manual counting, allowing them to focus on more meaningful work. As it is app based, SanAqua integrates seamlessly with whatever incubator equipment each individual lab already uses. This means no extra equipment is needed to run it, and therefore no unnecessary costs associated with new equipment.

We believe colony forming units are only the beginning - this solution could be adapted for a wider array of lab based counting, particularly for cell counting in tissue engineering.