ON Prime Team Examples - 'Big idea' Summaries

ON Prime Sydney

Better ways for making babies – The University of Adelaide

Infertility is a major health issue worldwide, with 4% of babies born in Australia conceived via assisted reproductive technologies (ART) such as IVF, the equivalent of one child per classroom. Furthermore, one in six couples experience some form of infertility and this figure will only rise. However, IVF is not a Band-Aid, as less than 20% of cycles result in a live baby. We are developing a non-invasive test, computational software, to predict which embryos are the healthiest, hence more likely to result in a healthy baby. This improves on current techniques that involve cell biopsies or expensive equipment.

NOS.E (Electronic Nose) – University of Technology Sydney (UTS)

According to the World Wildlife Fund's report of 2013, wildlife and forest crime is the 4th largest transnational crime in the world. The major trafficking enforcement issue is the lack of a rapid and accurate method to distinguish legal from illegal wildlife parts; even dogs trained to detect threatened wildlife parts cannot provide species-level wildlife identification. NOS.E (electronic nose) is a portable electronic olfactory device developed to identify illegal wildlife parts on-site. Equipped with machine intelligence, NOS.E will provide a low cost and low-power consumption solution to detect specific illegal wildlife parts efficiently.

ON Prime Melbourne

VitiApp – a new decision support tool to increase grape yield and wine quality – The University of Tasmania

There is growing demand for premium food and wine both domestically and by the burgeoning middle classes in Asia. To meet that demand in an increasingly intensified wine industry, farmers need risk management tools to prevent and/or mitigate significant and costly losses that can occur in production and distribution. "VitiApp" captures and interprets historical, current and forecast data from multiple sources for wine businesses and their service providers, and delivers information in an accessible format for easier, pro-active and environmentally-responsive decision making. Greater economic value will lead to wider uptake by the$300B global wine industry and other crop-based industries.

X-Ray Vision – RMIT

X-ray imaging is a cornerstone of modern medical diagnosis. However, X-rays do not provide enough contrast in soft-tissues. This is a serious limitation for radiographic cancer screenings and other medical processes that presently require high contrast imaging. We have developed a new, phase-contrast technology that improves X-ray image sensitivity and quality while reducing the dose to the patient, enabling superior imaging for tumour identification. Our technology, will improve the early detection of cancer and will be as cost effective as conventional X-ray imaging, thus reducing the need for more expensive scans such as CT and MRI.

ON Prime Brisbane

Apple Team – CSIRO Agriculture

New transformative food processing technologies to create high value food ingredients, fractions and nutritious food products from apple pomace; will help apple juice processors who want to recover, re-use and transform apple pomace by diverting the pomace back into the food supply chain. This will help the industry create value from waste apple pomace and increase the demand for apples and processed apple products, and contribute to global food and

nutrition security creating a cleaner environment; unlike existing approaches which divert pomace to landfill or animal feed.

ON Prime Perth

Virtual Training for Health and Aged Care – Curtin University

Delivering high quality training to increasing numbers of trainees is challenging due to availability of resources and the costs involved. However we offer cost effective, high quality virtual training solutions for health and aged care workers. The 'Virtual Home Visit' serious game enables the trainee to visualise and experience a home visit and develop a falls risk management plan for an elderly client. The Empathy Simulator provides trainees with a safe and interactive way to develop advanced skills in communicating and developing empathy. Our target market includes universities, colleges, registered training organisations and medical, health care and aged care providers.

The Noisy Guts Project – The University of Western Australia

An acoustic belt that listens to, records and analyses gut noises. It allows the team to collect massive amounts of data suitable for 'big-data' analysis, giving them an insight into the exact location, intensity and nature of gut noises. This allows for more accurate diagnosis and treatment in patients.

ON Prime Canberra

Wildlife Drones – The Australian National University

Wildlife Drones believe that innovative technology provides unprecedented opportunities to work in more efficient and cost-effective ways. Our idea is to use lightweight, highly portable radio-tracking drones to locate radio-tagged animals rapidly and accurately. In over 100 countries around the world, tracking has traditionally been done on foot which is expensive, time-consuming and very labour intensive work. The key value proposition of Wildlife Drones for our customers is the significant reduction in time, effort and money required to locate radio-tagged animals, especially within rugged or remote landscapes. These customers include wildlife researchers, pest animal managers and conservation non-government organisations.