

## Draft Project list for STEP

Updated: 9.5.19

OUI Project No.	Project Title	Description	Profile
2476	<i>Saliva Cannabis Testing</i>	Electrochemical means of detecting cannabis in saliva. Suitable for use in handheld roadside testing.	<i>to be added</i>
2718	<i>Detection and quantification of Arsenic in drinking water</i>	An electrochemical means to detect and quantify arsenic in drinking water.	<a href="https://innovation.ox.ac.uk/licence-details/real-world-arsenic-detection/">https://innovation.ox.ac.uk/licence-details/real-world-arsenic-detection/</a>
7909 & 10098	<i>Detection and quantification of Nanosilver in environmental water. Sticky electrodes.</i>	Electrode and detection capability for silver nanotubes in water. "Sticky" electrodes can be left in water courses and then taken back to labs for analysis.	<a href="https://innovation.ox.ac.uk/licence-details/electrochemical-detection-silver-nanoparticles/">https://innovation.ox.ac.uk/licence-details/electrochemical-detection-silver-nanoparticles/</a>
2880, 6962, 7908	<i>Ion Detector bundle</i>	Means of detecting ions with space and time information	<a href="https://innovation.ox.ac.uk/licence-details/charged-particle-imaging/">https://innovation.ox.ac.uk/licence-details/charged-particle-imaging/</a>
11295	<i>Essay Analysis</i>	Software that provides students with feedback on the structure of written essays	<a href="https://innovation.ox.ac.uk/licence-details/essay-structure-visualisation/">https://innovation.ox.ac.uk/licence-details/essay-structure-visualisation/</a>
8523	<i>Flower Recognition</i>	using image segmentation to recognise flower species based on a photograph (trained on 102 species so far)	<a href="http://www.robots.ox.ac.uk/~vgg/research/flowers_demo/">http://www.robots.ox.ac.uk/~vgg/research/flowers_demo/</a>
12992	<i>Face Descriptor CNN</i>	vector coding of a person's identity generated by a Convolutional Neural Network (CNN)	<a href="https://innovation.ox.ac.uk/licence-details/vgg-face-photo-identity-vector/">https://innovation.ox.ac.uk/licence-details/vgg-face-photo-identity-vector/</a>
12803	<i>Faces to paintings</i>	The software performs the task of matching photos of a person to similar looking people in paintings	<a href="https://innovation.ox.ac.uk/licence-details/faces-to-paintings-software-suite/">https://innovation.ox.ac.uk/licence-details/faces-to-paintings-software-suite/</a>
13695	<i>Text spotting software</i>	a method of detecting and recognising text in images	<a href="https://innovation.ox.ac.uk/licence-details/text-spotting-software/">https://innovation.ox.ac.uk/licence-details/text-spotting-software/</a>
2350, 2401	<i>Sensitive gas sensors</i>	Modified carbon-based electrochemical sensors that offer high sensitivity, improved selectivity and longer lifetimes. The sensors are appropriate for a range of gases and are also suited to low cost manufacturing techniques.	<a href="https://innovation.ox.ac.uk/licence-details/gas-sensors/">https://innovation.ox.ac.uk/licence-details/gas-sensors/</a>
11770	<i>Environmental Smartphone software</i>	The headphone jack can be used to receive the input from sensors. The phone can be used for processing and sending the signal. Intended as a low cost remote sensing application	<i>to be added</i>
3677	<i>Maritime Tracking Technology</i>	Dynamic tracking of moving objects in a complex environment	<a href="https://innovation.ox.ac.uk/licence-details/real-time-visual-tracking-technology/">https://innovation.ox.ac.uk/licence-details/real-time-visual-tracking-technology/</a>
7949	<i>Magnetic localisation of Smartphone</i>	A method of localizing mobile devices and smartphones without requiring any additional user hardware. It uses the spatial variation of low frequency magnetic fields to enable a device to identify its location by measuring the magnitude and direction of these fields.	<a href="https://innovation.ox.ac.uk/licence-details/magnetic-localisation-2/">https://innovation.ox.ac.uk/licence-details/magnetic-localisation-2/</a>
13249	<i>Wireless Charging System Animal Protection Device</i>	Nuclear Quadrupole Resonance sensors to detect specific amino acids or other biological material present in target animals when the animal is proximate to the field of a magnetic power transfer device. The Wireless Power Transfer may then be deactivated instantaneously, and in one embodiment it may be re-activated when the biological material is no longer present. The system may be specified to detect humans, while other embodiments may be tuned also to detect a variety of animals or other specific animals.	<a href="https://innovation.ox.ac.uk/licence-details/nuclear-quadrupole-resonance-sensor-safer-wireless-power/">https://innovation.ox.ac.uk/licence-details/nuclear-quadrupole-resonance-sensor-safer-wireless-power/</a>
9280	<i>High efficiency cooking pan</i>	A cooking pan designed for more efficient heat transfer from the flame to the pan leading to faster heating of the content and less energy need.	<a href="https://innovation.ox.ac.uk/licence-details/oxford-eco-pan-revolutionises-cooking-efficiency/">https://innovation.ox.ac.uk/licence-details/oxford-eco-pan-revolutionises-cooking-efficiency/</a>
10377	<i>Speech Recognition software</i>	Novel approach to speech recognition software from Professor Lahiri in Faculty of Linguistics.	<a href="https://innovation.ox.ac.uk/licence-details/flexible-speech-recognition-system-flexsr/">https://innovation.ox.ac.uk/licence-details/flexible-speech-recognition-system-flexsr/</a>
3902	<i>True Colours</i>	Bi polar (and other long term health) monitoring using questionnaire and mobile phone text messages	<a href="https://innovation.ox.ac.uk/licence-details/truecolours/">https://innovation.ox.ac.uk/licence-details/truecolours/</a>
3567	<i>Hermit</i>	Hermit is reasoner for ontologies written using the web ontology language (OWL). Given an OWL file, Hermit can determine whether or not the ontology is consistent, identify subsumption relationships between classes, and much more	<a href="https://innovation.ox.ac.uk/licence-details/hermit-semantic-web-software/">https://innovation.ox.ac.uk/licence-details/hermit-semantic-web-software/</a>
14478	<i>DIET</i>	Method for detecting energy theft using information from smart meters	<i>to be added</i>
9192	<i>Wildsensing- smart animal tracking tags</i>	A new generation of ultra-low power, wireless tracking tags capable of monitoring animals continuously in the field.	<a href="https://innovation.ox.ac.uk/licence-details/adaptive-animal-tracking-tags/">https://innovation.ox.ac.uk/licence-details/adaptive-animal-tracking-tags/</a>
15681	<i>Cation mediated viral detection</i>	Rapid, simple method for labelling enveloped viruses for detection, quantification and isolation	<i>to be added</i>
13952	<i>Targeted radiopaque contrast agents</i>	Targeted imaging agent as a companion diagnostic for osteoarthritis	<a href="https://innovation.ox.ac.uk/licence-details/next-generation-x-ray-contrast-agents/">https://innovation.ox.ac.uk/licence-details/next-generation-x-ray-contrast-agents/</a>
14289	<i>OpMiMoCo: removing jaggedness artefacts</i>	Image processing method to improve bidirectional scanning data acquisition	<i>to be added</i>
11735	<i>CD57 predictors of SCC (squamous cell carcinoma) in renal transplant recipients</i>	<i>to be added</i>	<i>to be added</i>