

# Going AIYP!



## What is AIYP?

AIYP (pronounced APE) stands for 'ARKive In Your Pocket' and is a two year strategic research and development project supported by Innovate UK (previously known as the Technology Strategy Board).

AIYP is a collaboration of expert partners involving 3C Research, the University of Bristol, VID Communications, Wildscreen (ARKive), BBC, Toshiba, Mubaloo and ProVision. Each of the partners has contributed their particular expertise to enable the creation of the research trial app known as Wild.i.

AIYP is a challenging project both technically and logistically. It combines representative demonstrations of deployable hardware with investigations and evaluations of future enablers. Many real world experiences can be hugely improved by augmentation with digital content by exploiting 3G/4G/WiFi wireless technologies through high performance multimedia networks and mobile devices (for example iPhone, iPad, Google Android).

## The impact

The aim of AIYP has been to reliably stream, for the first time, video and multimedia content to Wi-Fi enabled tablets and smartphones as a multicast service.

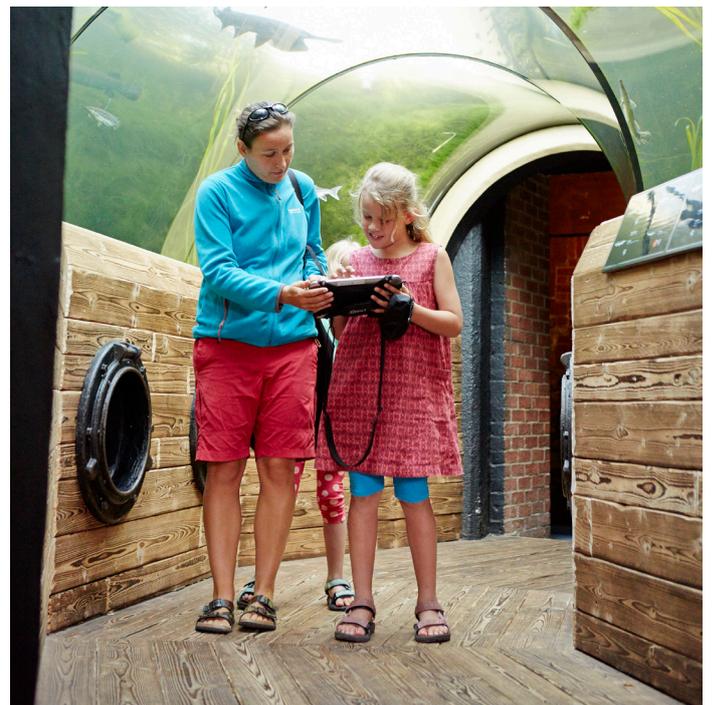
AIYP will influence the way large scale events are run, the way people interact with their environments and the way media services are produced. It will provide the media, educational and entertainment industries with an opportunity to deliver new spectator experiences.

Over the last two years the AIYP project has focused on enhancing immersive and educational experiences of wildlife engagement through high performance multimedia mobile networks.

It has, for the first time, enabled a complete end-to-end live and interactive low-cost IP based image and video infrastructure.

## Research Trials

During the project lifecycle there have been two field trials, one at the WWT Slimbridge Wetland Centre and one at Bristol Zoo Gardens. The project was tested through the development of an app named "Wild.i" for Toshiba android tablets. The testing at Slimbridge Wetland Centre in winter 2014 had 146 users, and involved the installation of antennas to create a network over a wide area of natural, tree-filled habitat, with free-ranging animals. The summer trial at Bristol Zoo Gardens used a re-designed app with additional features, and was staged during the busiest period, with a more casual user group of 152 users who shot over 420 still and video assets. Combined, the trials cover a wide range of users, weather conditions and encounters with the key animal species.



The AIYP project has delivered:

- > Robust unicast and multicast delivery of compressed content to portable devices over wireless networks.
- > User interfaces to support navigation, search and retrieval of key data and content in the mobile ARKive application, creating personalised user experiences for different situations and locations.
- > Augmented reality services that enable users to better plan and interact with the event or experience.
- > Delivery to multiple Android tablets, including the unified common development platform being promoted by the Wholesale Applications Community (WAC).
- > An enriched and educational process for the user providing new commercial opportunities arising from reuse of content.
- > Content based and metadata based search for image and video data, combined with keyword search.
- > Enhanced awareness due to biometric identification of species and individuals with supporting metadata.
- > Validation at key trial sites providing challenging environments with a rich data resource.
- > Linkage to educational institutions for subsequent project completion.

These were enhanced by specific data and visual services available at the trial locations. For example:

- > Seamless integration of live content from cameras with remote contextual data to provide both immersion and ecological information.
- > Improved situational awareness through location-based services and GPS alerts (eg; the penguins are being fed at 3pm).
- > Species recognition.



The trials clearly demonstrated the value of enhancing the physical experience with a highly-visual and intuitive app.

### AIYP – The future

Whilst the market for effective engagement with wildlife is significant, the wider market opportunity for high quality, reliable interactive wireless video services is huge and truly global. AIYP technology turns the conventional broadcasting paradigm inside out. It enables for the first time a complete end-to-end live and interactive low-cost IP based image and video infrastructure.

AIYP will influence the way large scale events are run, the way people interact with them and the way media services are produced. It will provide the media, educational and entertainment industries with an opportunity to deliver new spectator experiences. The markets for this range from smaller festivals to major international sporting events, including adoption on a world scale, for example at the Olympic Games.

A number of possible business models exist for this technology. These include: system purchase or hire, custom solutions supported by increased entrance fees, service level charging, advertising or even betting.