



## **British and Dutch teams win Human Wildlife Conflict Tech Challenge**

- **Competition sought to find the most exciting new technologies to address human wildlife conflict, offering two prizes of €30,000**
- **The competition aims to reduce the number of deadly confrontations between people and wildlife**

**British conservation technologist Alasdair Davies and the Dutch team of Laurens de Groot and Tim van Dam are the winners of the first international Human Wildlife Conflict Tech Challenge initiated by WILDLABS and the World Wide Fund for Nature (WWF). Each winner will receive €30,000 to further develop and field test their solution for human-wildlife conflict.**

WWF and WILDLABS set this challenge in July to technology developers, engineers, designers and nature lovers to find a new way to help to minimise conflict between people and wildlife. As people continue to move into natural habitats, conflict can occur over the damage caused by wildlife to livestock and property. People can also be injured or killed in attacks by wild animals. In India alone, 1,200 people lost their lives in clashes with wildlife between 2014 and 2017. In return, hundreds of animals have been killed in defence or retaliation.

The two winning applications were chosen from 47 innovative ideas originating from 14 countries to help solve the increasing confrontations between people and wildlife such as tigers, polar bears and elephants. An international panel of human wildlife conflict and technology experts assessed the feasibility of the proposals.

### **Detection of carnivores**

The innovative early warning system of Alasdair Davies of the Arribada Initiative from the UK is aimed at the early detection of carnivores like polar bears and tigers. It uses a clever combination of traditional infrared sensors and thermic sensors capable of discriminating between species, allowing it to alert people to the presence of a specific animal, but not when a human or a dog passes.

Stephanie O'Donnell, Community Manager of **WILDLABS** about Davies' proposal: 'This affordable tool uses infrared sensors to detect the unique body heat and shape of polar bears and tigers, which then sends an alert to locals of the approaching carnivore. By offering more precise discrimination between species detected by the system, the frequency of false alarms will be reduced and enhance the sense of security of people living along tigers, polar bears or other carnivores.'

## **Improving effectiveness of electric fences**

The proposal of Laurens de Groot and Tim van Dam of the ShadowView Foundation is aimed at reducing conflicts between people and elephants. It is based on the wireless LoRaWAN™ (Long Range Wide Area Network) telecommunication technology to which a variety of sensors can be linked that detect animal presence and power leaks in electric fences that are being used to keep out elephants. Alarms linked to the sensors alert people by setting off buzzer flashlights or sending SMS messages, to warn villagers when a fence has been damaged or broken by elephants.

Competition judge panellist Mohanraj from India is enthusiastic about the possibilities in the field: "LoRaWAN™ based network technology is the future. It will enable us to integrate various systems monitoring species movement, voltage on fences and other important variables. Europe and especially the Netherlands are frontrunners in this technology and I'm very excited to see this applied in elephant conservation in India."

Both proposals will be tested in India in 2018. Since the proposals are complementary and can reinforce each other's effectiveness the developers are encouraged to collaborate. Alasdair Davies commented on this: "I'm absolutely thrilled to win this award and plan to develop the carnivore early warning system openly with the ShadowView Foundation and the entire Wildlabs community."

## **International competition**

**WILDLABS** and WWF launched the first HWC Tech Challenge in 2017 to source solutions to two major human-wildlife conflict issues: elephants in India and carnivores (tigers in Asia and polar bears in the Arctic). The competition challenged engineers, designers and nature lovers worldwide to come up with new technological solutions to prevent these conflicts and so benefit both people and wildlife.

## **Finding technological answers to a deadly serious problem**

The number of deadly encounters of people and wild animals such as tigers, elephants and polar bears is growing. This is due in large part to shrinking natural habitat for these species as human settlements and activities expand. As a result, the lives of people as well as wildlife are being lost, while great damage is being done to property, livestock and crops.

It is more important than ever to find solutions to this problem. Although there are currently a number of measures and tools to prevent human-wildlife conflict (ranging from the use of electric fences to deep trenches, chilli bombs, bees, fire crackers and flashlights to improving education land use planning), they are not effective enough, or come too late, to prevent interactions between humans and wildlife from escalating into full conflict.

By putting the problem to engineers, designers and nature lovers from around the world, **WILDLABS** and WWF are harnessing the combined skills, knowledge and ingenuity of the global community to help solve this pressing conservation problem.

The developments around the field testing of the winning proposals in 2018 can be followed on the site of [WILDLABS](#).

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More information about Alasdair Davies: <http://blog.arribada.org/>

More information about Laurens de Groot, Tim van Dam and the ShadowView Foundation: <http://shadowview.org/>

More information about the HWC Tech Challenge: <https://www.wildlabs.net/hwc-tech-challenge>

### **About WWF**

WWF is one of the world's largest independent conservation organisations, with more than five million supporters and a global network active in more than one hundred countries. Through our engagement with the public, businesses and government, we focus on safeguarding the natural world, creating solutions to the most serious environmental issues facing our planet, so that people and nature thrive. Find out more about our work, past and present at [wwf.org.uk](http://wwf.org.uk)

### **About WILDLABS**

The United for Wildlife collaboration, with support from Google.org and ARM, launched [WILDLABS.NET](http://WILDLABS.NET) to enable more open sharing of information about the use of technology for conservation. WILDLABS brings together a global community of over 1,900 conservationists, technologists, engineers, entrepreneurs and thought leaders to share problems and successes, give and receive guidance, and access the resources needed to discover or collaboratively create technology to solve big conservation challenges.