

HACK THE
PLANET

TECHNOLOGY FOR GOOD



PRODUCT OVERVIEW · 2026

Instant Detect

Protect wildlife faster, smarter, anywhere: AI camera traps that send images via satellite, in near-real-time.

hack-the-planet.io/products/instant-detect · Rotterdam, Netherlands

ABOUT HACK THE PLANET

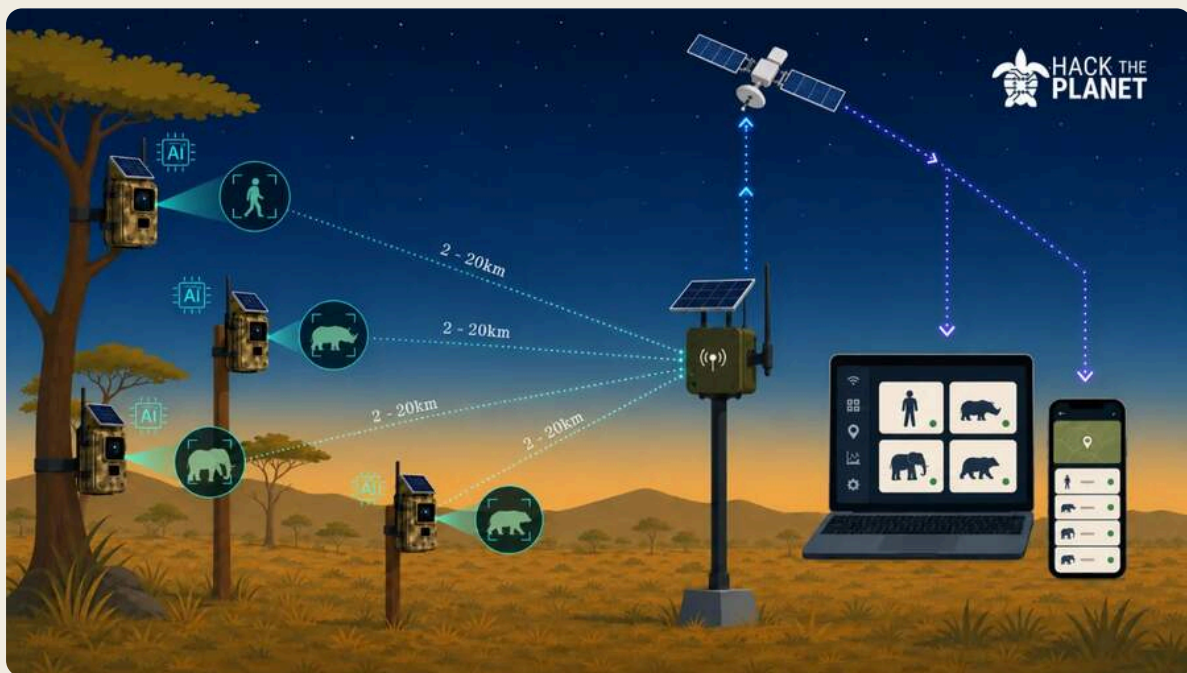
Tech for good across three pillars: wildlife conservation, social impact, and innovation. We're a non-profit foundation working alongside rangers, NGOs and communities worldwide.

THE PROBLEM

Conservationists deploy camera traps deep in the field, then come back weeks or months later to retrieve them, only to find equipment damaged, stolen or filled with months of irrelevant images. By the time data reaches a researcher's laptop, the moment to act has already passed.

What it does

Instant Detect is a satellite-connected wildlife monitoring system. Cameras form a local LoRa network, with a single satellite-linked Base Station forwarding images to the cloud.



HOW IT WORKS

What it does

Instant Detect is a **wildlife, environment and threat monitoring system** designed specifically for conservationists and wildlife rangers. Cameras are deployed across a site and form a local LoRa radio network, with individual cameras sitting **2–20 km from the Base Station** depending on terrain and line of sight. A single Base Station relays all data via Iridium satellite to the cloud, so even from somewhere truly remote, images and alerts reach you the same day.

On-device AI: the unique advantage

Each Instant Detect camera runs **species-recognition AI directly on the device**. That sounds technical, but the practical impact is huge: instead of sending every snapshot to the cloud (and your inbox), the camera *understands* what it's looking at, on the spot, and only forwards what matters.

In practice this means you can:

- Trigger **real-time interventions** the moment a detection happens. Because the AI runs on the device itself, the system can act instantly without waiting for a server round-trip. This is exactly what makes our **Smart Deterrent** possible: detect a problem species and respond on the spot.
- Get alerts only when a **specific species** appears: elephants, hippos, brown bears, whatever you're tracking
- Filter out everything except **human activity**, turning the camera into a silent anti-poaching watchman
- Keep satellite bandwidth (and your team's attention) focused on signal, not noise

This is unusual in the camera-trap category. Most systems either don't run AI, or only do it server-side after the fact. Instant Detect's on-device intelligence is what makes the rest of the system viable in the field.

Why this exists

Traditional camera traps are great at capturing wildlife and bad at telling anyone about it. Researchers leave them in the field for weeks, retrieve them, and only then learn what they captured. By that time, a poaching incident is long over, an injured animal has moved on, and an opportunity to act has been lost.

Instant Detect was built around a simple idea: get the right image to the right person, fast. Not a livestream of useless triggers, just the few that actually matter, delivered in near-real-time.

A history rooted in conservation science

Instant Detect was originally developed by the **Zoological Society of London (ZSL)** between 2016 and 2023, in close collaboration with rangers and field scientists. In 2025 stewardship of the platform transferred to **Hack The Planet**, where we continue to evolve and deploy it for partners around the world.

[CAPABILITIES]

Built for the unreachable

Cameras form a local network. A single Base Station relays everything to the cloud over satellite, even from places without a cell tower for hundreds of kilometres.

01

On-device AI

Each camera runs AI species recognition locally, identifying animals (or humans) in real time on the device itself. That is rare in this category.

02

Smart filtering

Tell the system which species you care about. Only get alerts for elephants, or only for human presence (anti-poaching), instead of being buried under thousands of irrelevant frames.

03

Real-time imaging

Captures and transmits images in near-real-time, motion-triggered via built-in PIR detection.

04

Affordable satellite link

Iridium connectivity from the Base Station works anywhere on the planet, including jungles, deserts and Antarctic regions.

05

Long-range LoRa network

Cameras talk to the Base Station over LoRa at distances of 2–20 km, depending on terrain, so only the Base Station needs satellite.

06

Solar-powered

Cameras run entirely on solar power. No battery swaps, no maintenance field visits.

07

Cloud platform

Manage devices, view images and configure alerts from any browser via Instant Detect Cloud.

08

Rugged & low-maintenance

Dust- and waterproof, extreme-temperature tolerant, designed for months of unattended operation.

[WHAT SETS IT APART]

Why Instant Detect?

There are plenty of camera traps. Here's what sets Instant Detect apart.

01 Real-time images from anywhere in the world

Most monitoring systems depend on cell coverage, wifi or existing infrastructure. Instant Detect builds its own local LoRa network and relays via Iridium satellite from a single Base Station, so you get images in near-real-time from the most remote places on earth, even where no cell tower, wired connection or other network exists.

02 On-device AI, not server-side

Each camera identifies species in real time, on the unit itself. Combined with smart filtering, you stop drowning in irrelevant images and only see what you actually care about.

03 Built by conservationists for conservationists

Originally developed at the Zoological Society of London (ZSL) over 7 years with researchers and rangers. Every feature exists because someone in the field asked for it.

What you can use Instant Detect for

We built it for conservation, but the system works anywhere you need eyes-on-the-ground in the most remote places, without depending on any existing network.

Real-time biodiversity monitoring

Live species sightings stream from remote field sites straight to your dashboard. No SD-card swaps, no waiting for the next field visit.

Anti-poaching & human detection

Filter the AI on people only, and every camera becomes a silent watchman that alerts rangers the moment someone enters a protected zone.

Invasive species early-warning

Catch the first sightings of an invasive before it spreads across borders, valleys or whole protected areas.

Population & behaviour studies

Long-term unattended monitoring of priority species in places no research team can visit often.

Habitat restoration & rewilding

Watch how wildlife returns to restored landscapes as it happens, with quantitative data behind every story.

Border & infrastructure monitoring

Beyond conservation: any remote site that needs reliable human-presence and motion alerts where no network reaches.

[FIELD DEPLOYMENTS]

Where Instant Detect is deployed

Instant Detect runs species-recognition AI on each camera, links them with a single satellite-connected Base Station, and gets the right image to rangers and researchers in near-real-time, even from rainforests, deserts and parks where no cell network reaches.



· ROMANIA

Real-time bear monitoring with WWF Romania

4G cameras with a two-stage AI pipeline that recognise brown bears in real time and push the detections straight into the Sensing Clues platform.

With WWF Romania · Sensing Clues



· AMAZON, BRAZIL

Real-time monitoring of illegal logging in the Amazon

Cameras deep in the Amazon rainforest that detect movement and send the images straight on, so Indigenous Forest Guardians can intervene before large stretches of protected forest disappear.

With Treesistance · Indigenous Forest Guardians



· CARPATHIAN MOUNTAINS, ROMANIA

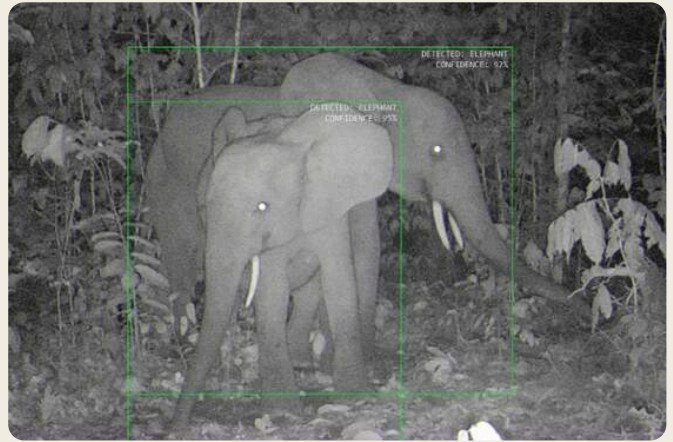
Keeping brown bears out of mountain villages

15 AI cameras and 15 Smart Deterrents to keep brown bears out of mountain villages, without harming them.

With Foundation Conservation Carpathia

[FROM THE FIELD]

In the field



Bring Instant Detect to your conservation work

We work with parks, NGOs and research institutions to deploy Instant Detect where it can make the biggest difference. Tell us what you're trying to monitor.

[Contact us](#)[Support our work](#)

Email info@hack-the-planet.io

Web hack-the-planet.io

Ten years of innovation

Hack The Planet was founded in 2016 on a clear conviction: the right technology, in the right hands, can move the needle on the world's biggest problems. We bring engineering expertise to the field, for wildlife, for communities and for the people who protect them.

Ten years later we've worked across **10+ countries** with **34+ partners**, and in 2025 we became an official Dutch non-profit foundation. The mission has not changed: build technology that helps wildlife, communities and the people who protect them.

Our work is funded by donations, grants and partnerships. Because we are an **ANBI** (Algemeen Nut Beogende Instelling), donations from the Netherlands are tax-deductible.

Q42 is our **founding donor** and has made Hack The Planet possible. From the start they contributed funding, engineering time and a home to grow from. Hack The Planet now operates as an independent foundation, but Q42 is still a long-term supporter, and the place where it all started.

LEGAL NAME	STATUS	KVK	IBAN
Stichting Hack The Planet	ANBI-registered	98279238	NL79 TRIO 0321 1304 05

Where our technology makes a difference

Where our technology makes a difference, from rangers in remote national parks to communities closer to home.

01

Conservation

Anti-poaching, wildlife monitoring and human-wildlife coexistence, built together with rangers, NGOs and research partners on the ground.

02

Social impact

Tech serving people, from VR experiences for elderly care to digital interventions tackling youth violence.

03

Innovation

New concepts that prove what's possible: affordable medical devices, autonomous drones, immersive humanitarian training.

01 · Conservation

Technology that protects wildlife

Most of our conservation work happens in protected areas across the globe. Rangers there patrol thousands of square kilometres without cell coverage, poachers move silently at night, and an elephant or a brown bear stepping into a village can change lives in seconds.

We build the hardware and software that ranger teams, NGOs and research institutions rely on in exactly those conditions. Solar-powered, satellite-connected, ruggedized for heat, dust, rain and curious wildlife. Every season it gets refined by the people who actually use it in the field.

The result is a small set of three platforms, plus the deployments that prove them.



[OUR PRODUCTS]

Three field-proven platforms, deployed in collaboration with our conservation partners worldwide.



Product 01

ScannerEdge

Passive radio-frequency detection that warns rangers about people in places they shouldn't be.



Product 02

Instant Detect

Protect wildlife faster, smarter, anywhere: AI camera traps that send images via satellite, in near-real-time.



Product 03

Smart Deterrent

An AI-triggered, non-lethal deterrent that keeps wildlife, and the people sharing their landscape, out of harm's way.



[WHERE WE WORK]

Field deployments worldwide

From mountain valleys in Romania to rainforests in Gabon and ranger stations in Zambia. Our work runs wherever rangers, NGOs and communities need it.



BRAZIL

ROMANIA

GABON

THE NETHERLANDS

ZIMBABWE

ZAMBIA

UGANDA

NAMIBIA

INDONESIA

CANADA

[GET IN TOUCH]

Help us build technology that matters

Donations directly fund hardware, deployment and maintenance of our work in the field. If you're a ranger team, NGO, researcher or partner, we'd love to hear what you're working on.

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Donations from NL are tax-deductible.