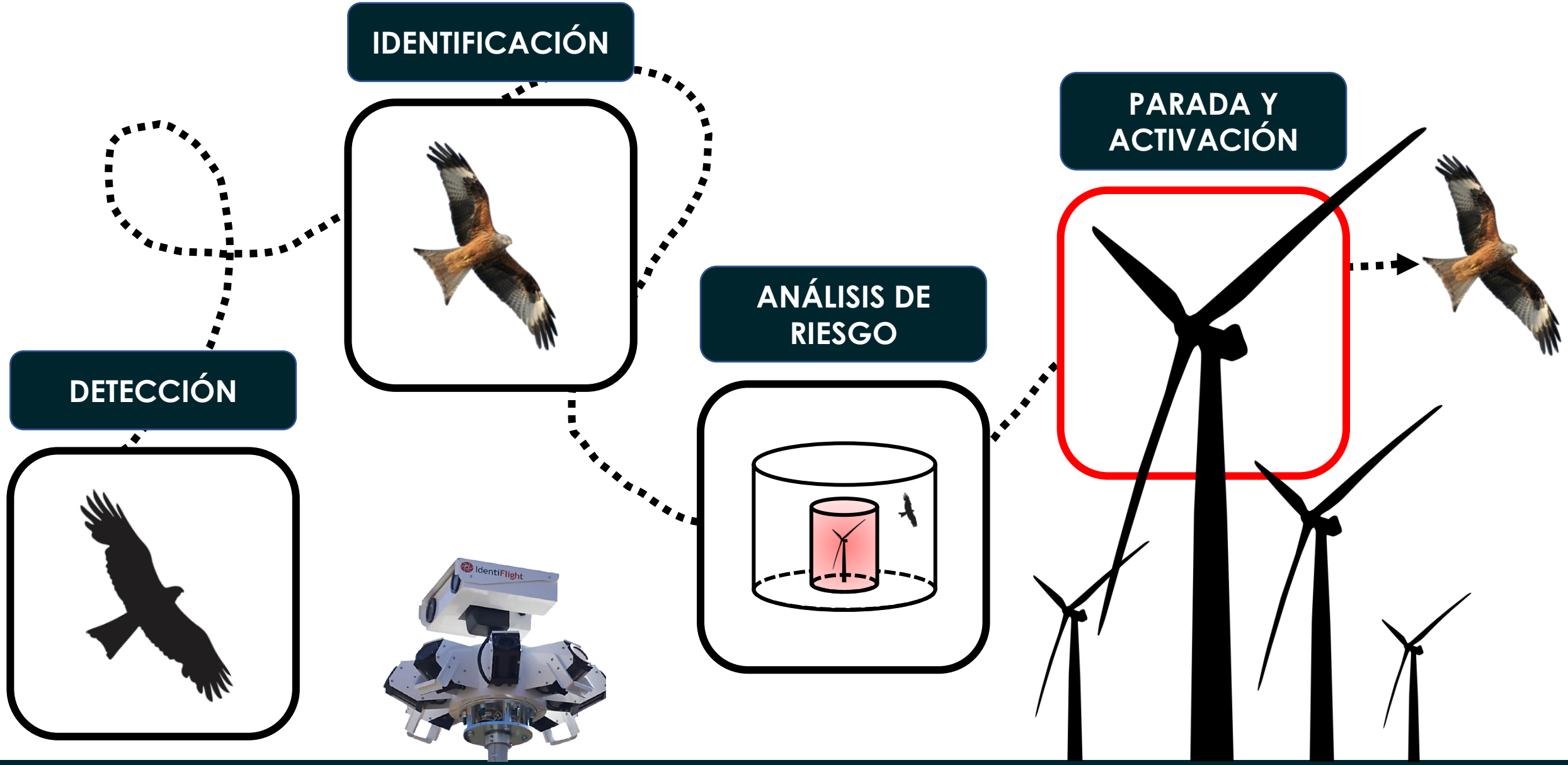
SISTEMAS AUTOMÁTICOS DE DETECCIÓN DE AVES Y PARADA DE AEROGENERADORES

El caso de éxito de IdentiFlight

ZEFIRO PARTNERS

AEE Asociación Empresarial Eólica

JORNADA ANÁLISIS OPERATIVO DE PARQUES EÓLICOS. 4 OCTUBRE 2022


IDENTIFICACIÓN
DETECCIÓN
ANÁLISIS DE RIESGO
PARADA Y ACTIVACIÓN
IdentiFlight

IdentiFlight

AEE
Asociación Empresarial Eólica

JORNADA ANÁLISIS OPERATIVO DE PARQUES EÓLICOS. 4 OCTUBRE 2022

ZEFIRO PARTNERS

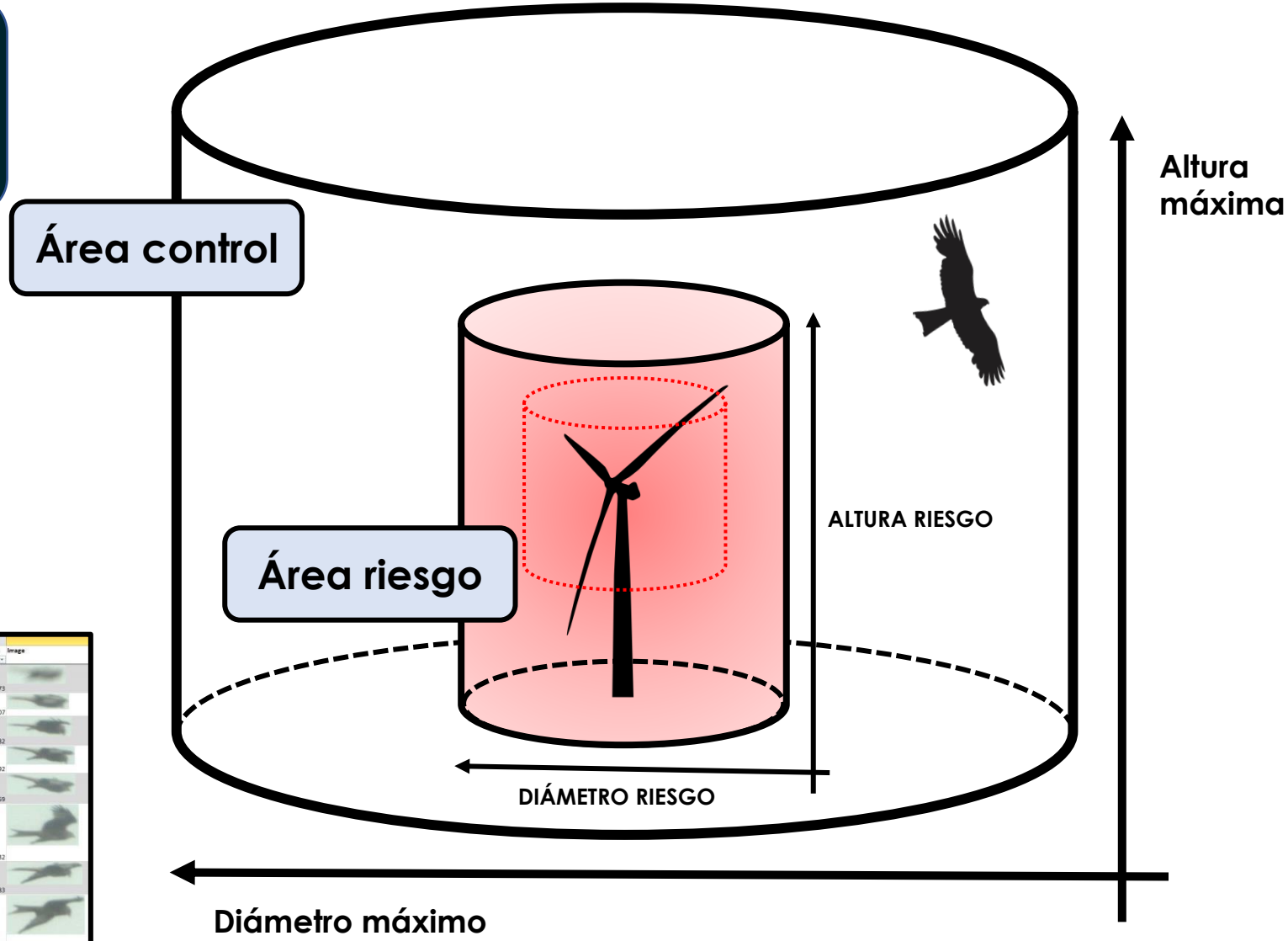
Sensores Estereoscópicos de Alta Resolución (HRSC)

- Giro de 360º
- Cálculo de distancias
- Identificación de especies
- Resgistro de trayectorias de vuelo

Cámaras de campo ámplio de vision (WFOV)

- Cobertura 360º
- Detección de aves
- Discriminación de máscaras
- Capacidad > 1000 m

CONTROL INTEGRAL EN TIEMPO REAL



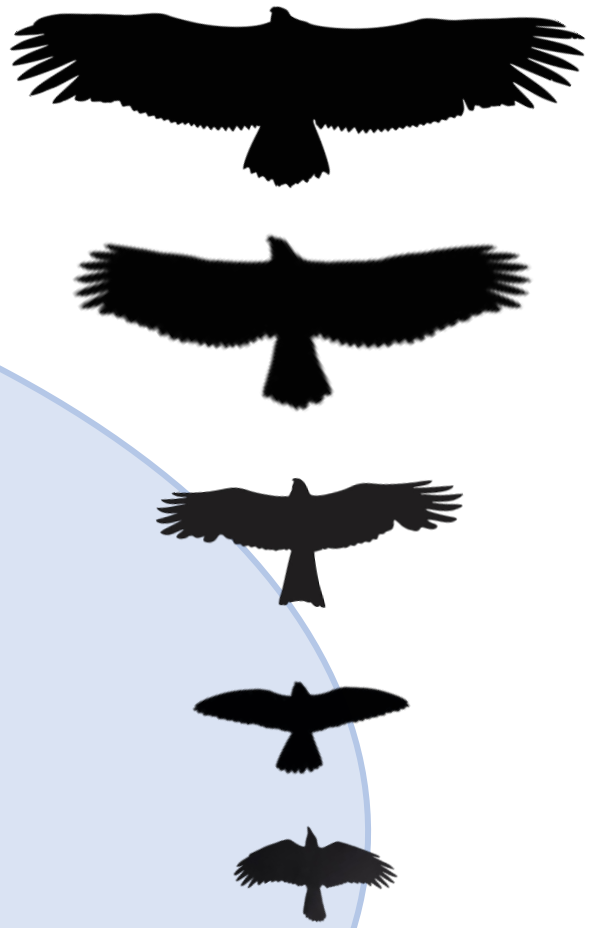
- **+95 % DE AVES DETECTADAS**
- **+96 % DE AVES IDENTIFICADAS**
- **+85 % DE REDUCCIÓN DE MORTALIDAD**
- **1-4 % DE FALSOS POSITIVOS**

Efectivo a más de 1000 m

Define trayectorias de vuelo

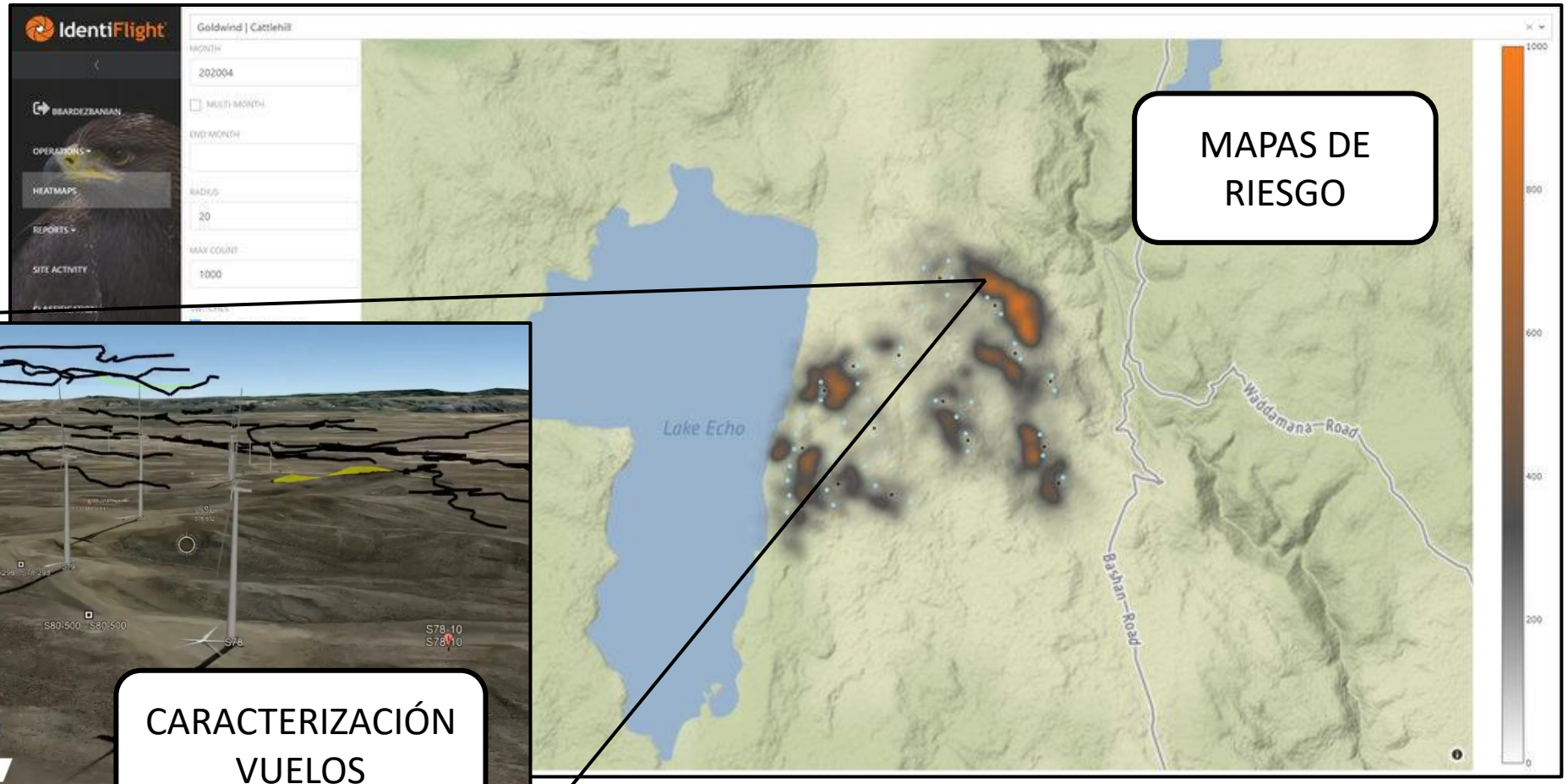
Información en tiempo real

Pérdida de producción <1 %



Especies mayores o iguales a un cernícalo o cuervo

MAPAS DE RIESGO Y OPTIMIZACIÓN



MAPAS DE RIESGO

CARACTERIZACIÓN VUELOS

CERTIFICACIONES INDEPENDIENTES

Estados Unidos (2016)

U.S. DEPARTMENT OF ENERGY | Office of Science

Alemania (2018-2020)

Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety

Francia (2021-Actualidad)

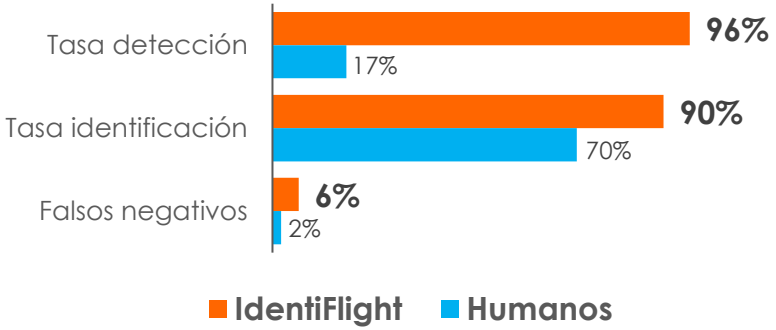
MINISTÈRE DE LA TRANSITION ÉCOLOGIQUE
Liberté
Égalité
Fraternité

Australia (2021)

Australian Government
Department of Agriculture, Water and the Environment

ESPAÑA (EN PROYECTO)

EFICACIA DEMOSTRADA

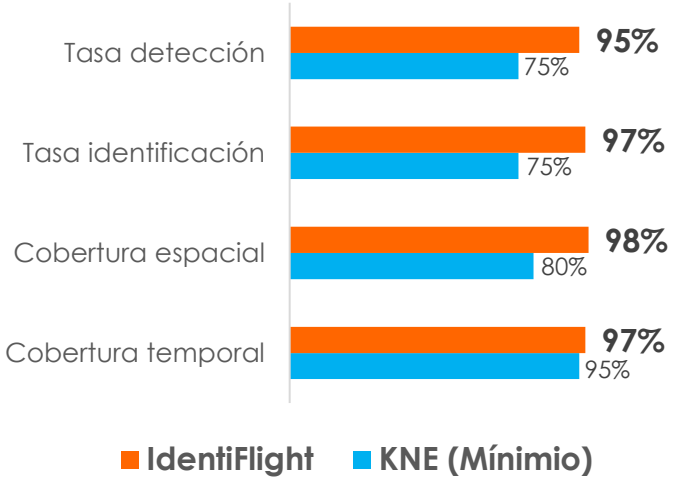


U.S. DEPARTMENT OF ENERGY | Office of Science

AMERICAN WIND WILDLIFE INSTITUTE

WEST Environmental & Statistical Consultants

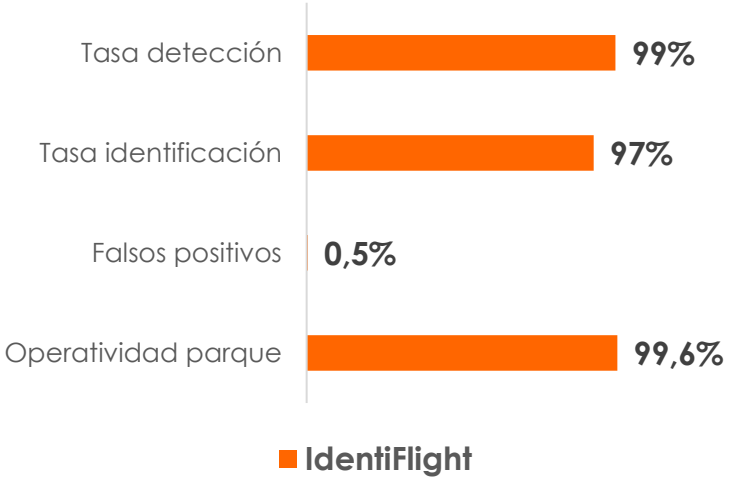
THE PEREGRINE FUND



Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety

BfN Federal Agency for Nature Conservation

KNE | Kompetenzzentrum Naturschutz und Energiewende



Australian Government
Department of Agriculture, Water and the Environment

WILD CATTLE HILL PTY LTD

GOLDWIND

POWERCHINA

RESPALDO CIENTÍFICO

BIOLOGICAL CONSERVATION

- AUTOMATED MONITORING FOR BIRDS IN FLIGHT: PROOF OF CONCEPT WITH EAGLES AT A WIND POWER FACILITY (2018)

Ecology and Evolution Open Access

- EAGLES ENTER ROTOR-SWEPT ZONES OF WIND TURBINES AT RATES THAT VARY PER TURBINE (2021)

Journal of Applied Ecology — BRITISH ECOLOGICAL SOCIETY

- EAGLE FATALITIES ARE REDUCED BY AUTOMATED CURTAILMENT OF WIND TURBINES (2021)

IBIS — BOU — international journal of avian science

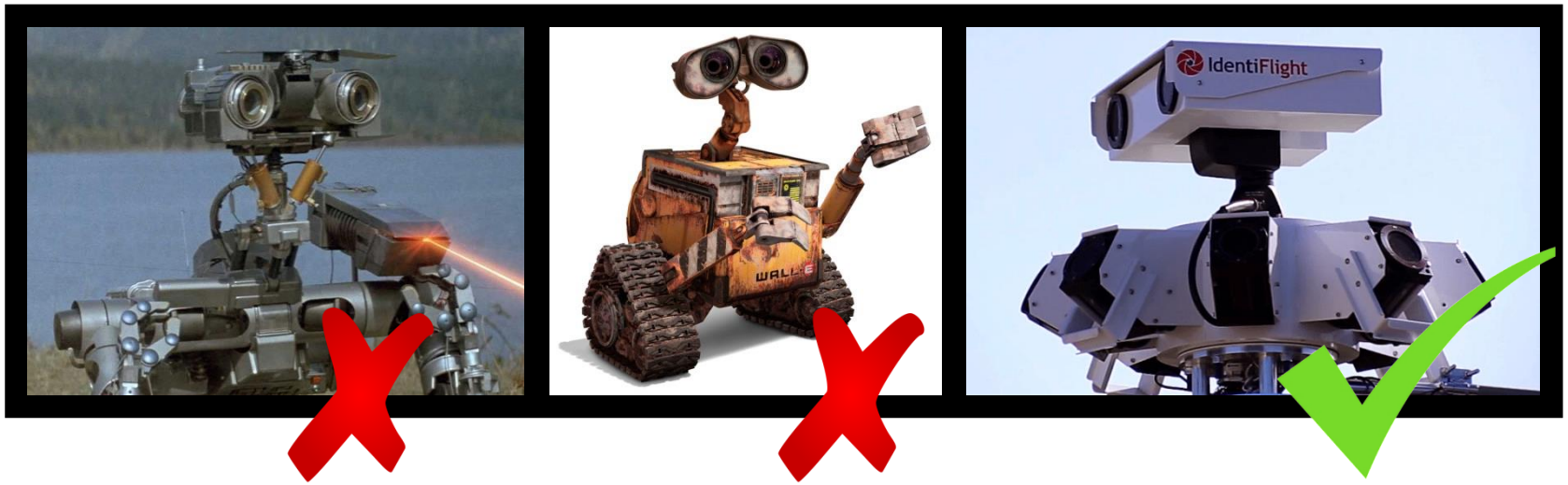
- FLIGHT CHARACTERISTICS FORECAST ENTRY BY EAGLES INTO ROTOR-SWEPT ZONES OF WIND TURBINES (2022)

Ecological Solutions and Evidence — AER Applied Ecology Resources — BRITISH ECOLOGICAL SOCIETY

- CONFIRMATION THAT EAGLE FATALITIES CAN BE REDUCED BY AUTOMATED CURTAILMENT OF WIND TURBINES (2022)

Preprints

- QUANTIFYING RAPTORS' FLIGHT BEHAVIOR TO ASSESS COLLISION RISK AND AVOIDANCE BEHAVIOR TO WIND TURBINES (?)



PUEDEN PARECERSE, PERO SOLO UNO ES EL AUTÉNTICO…

MUCHAS GRACIAS