Caught in the camera trap

A needs-led exploration

IMPROVED NATURE CONSERVATION THROUGH INNOVATIVE DATA SOLUTIONS

Accelerate impact through

- Real-time monitoring & Predictive analytics
- Worry-free out-of-the-box platform
- Easy to set-up and tune to your needs
- Personal support of experts
- Reduced need for in-house developers

SENSING CLUES

Make more impact by moving from reactive to proactive.

Work with data which is targeted, timely, and actionable.
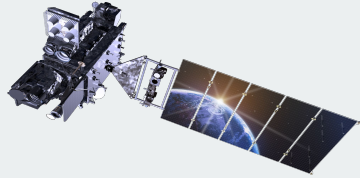
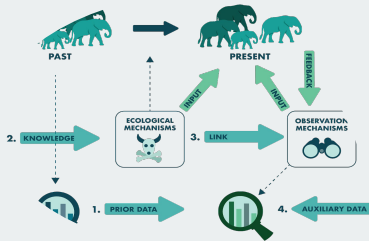Complete complex tasks in a few clicks.

Nature FIRST

Consortium

Nature FIRST Innovations

REMOTE SENSING

FORENSICS

DIGITAL TWINS

- ❖ **Map** ecosystems and their species

- ❖ **Monitor** them and detect changes

- ❖ **Predict** changes and events

CONTINUOUS MONITORING

IN NEAR REAL-TIME

&

PROACTIVE ACTION

TESTED

ACROSS

- Data sources
- Taxonomies
- Area boundaries
- Language barriers

Biodiversity monitoring & Assessment of conservation status
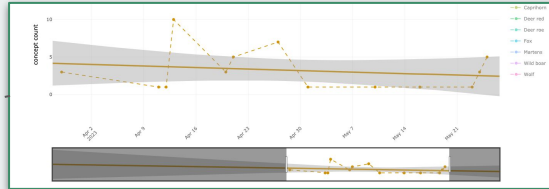
5 maturity levels of data-driven nature conservation

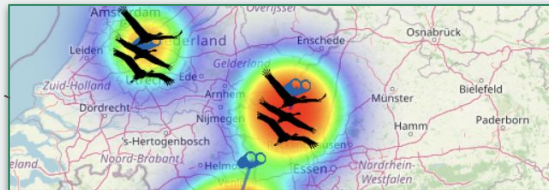**Mapping** the area

Monitoring changes

Periodic risk assessments
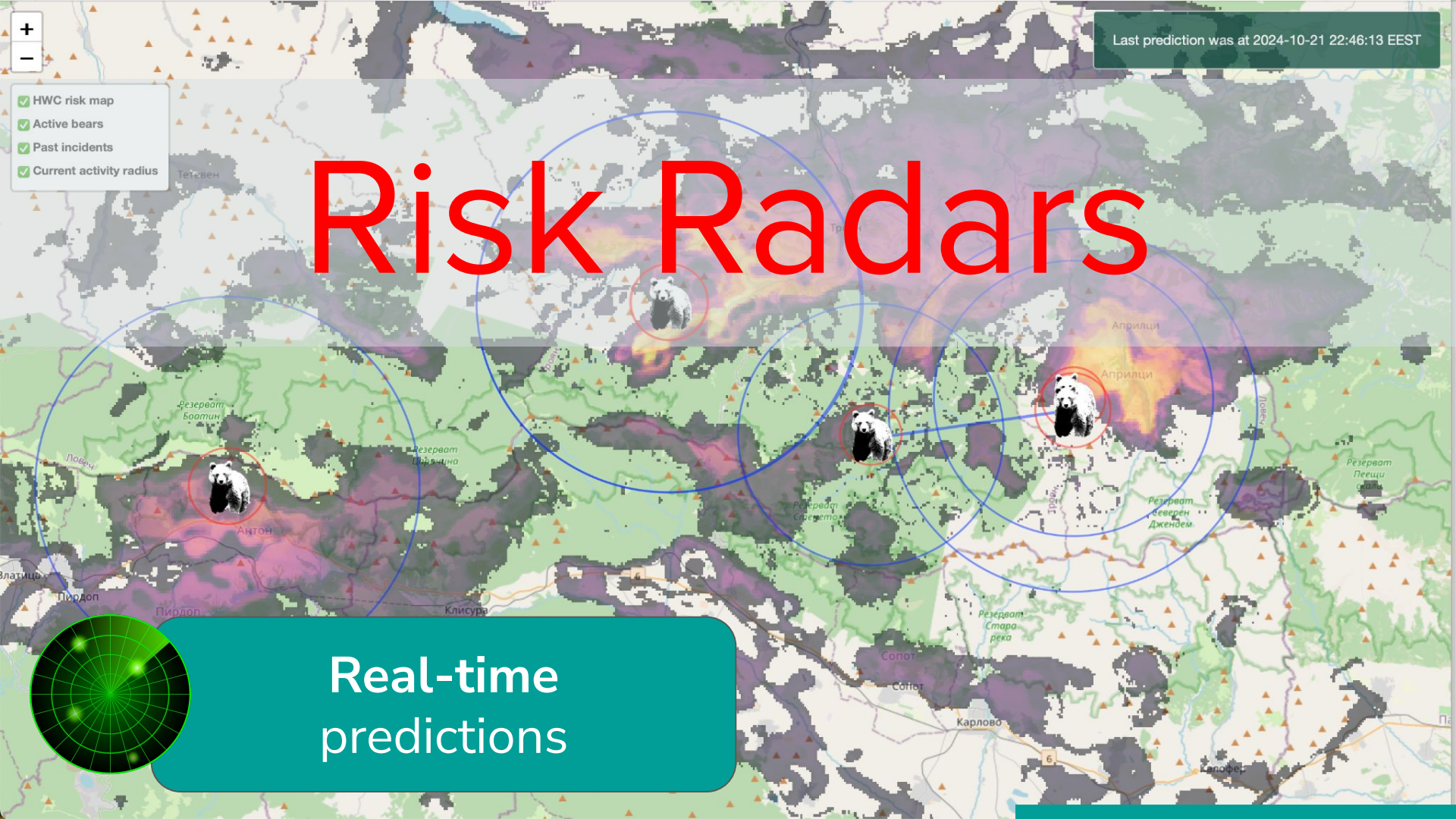
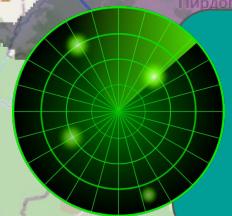**Real-time** predictions

Scenario-based projections

Risk Radars

Last prediction was at 2024-10-21 22:46:13 EEST

- ☑ HWC risk map
- ☑ Active bears
- ☑ Past incidents
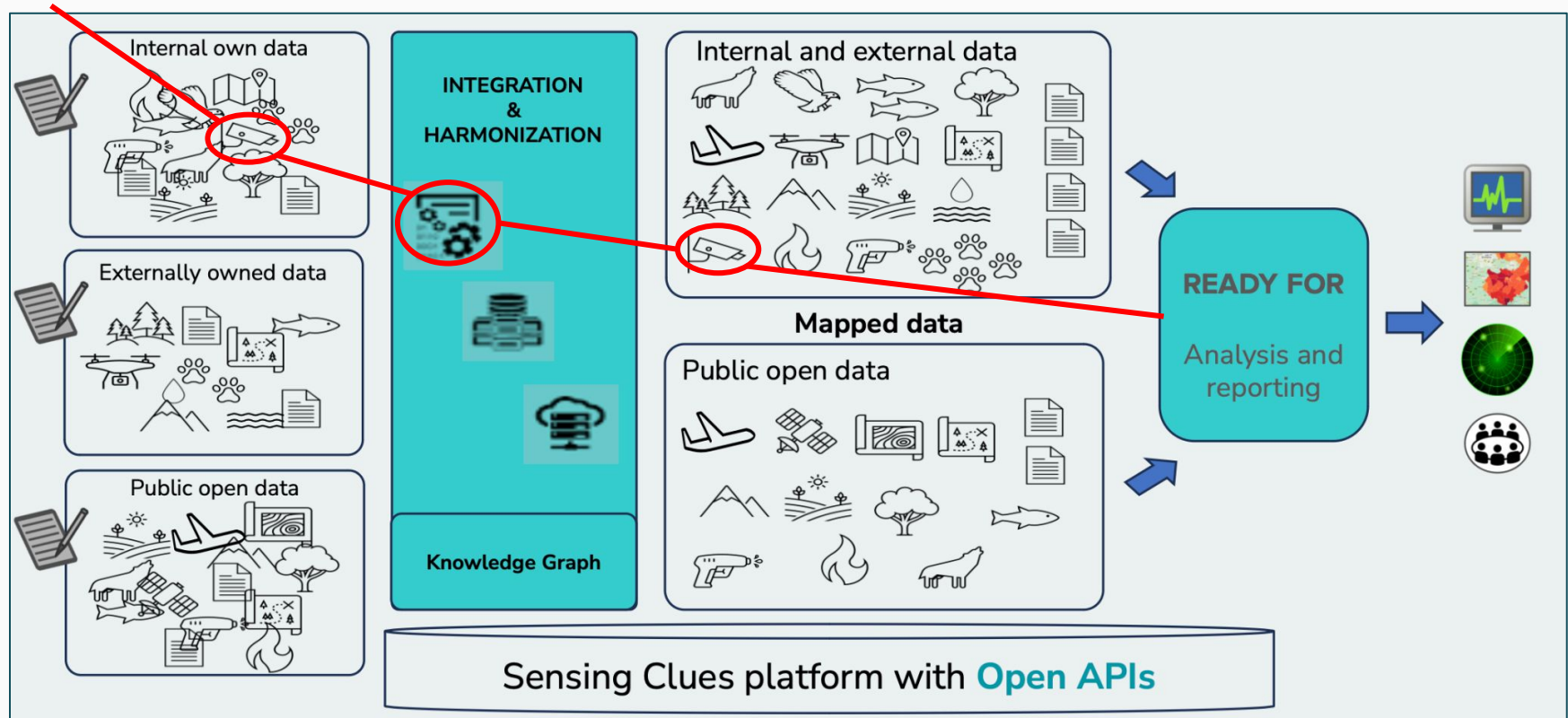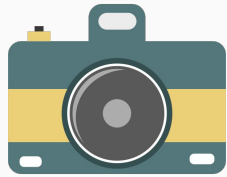- ☑ Current activity radius

Real-time predictions

Caught in the camera trap

A needs-led exploration

Data management and integration: organised & harmonised

Internal own data

Externally owned data

Public open data

INTEGRATION & HARMONIZATION

Knowledge Graph

Internal and external data

Mapped data

Public open data

READY FOR

Analysis and reporting

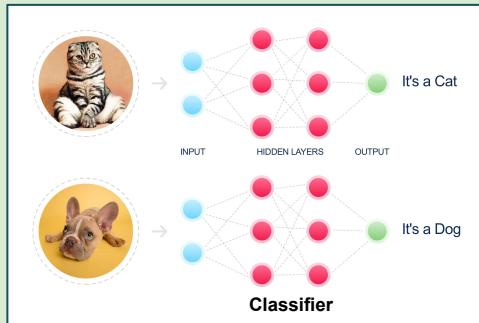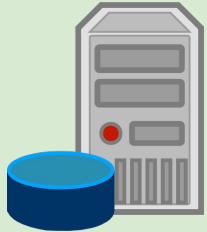Sensing Clues platform with Open APIs

as as Service

1. Camera

2. Data transfer

3. Software package

- 3.1 Storage + Process flow
- 3.2 One or more classifiers
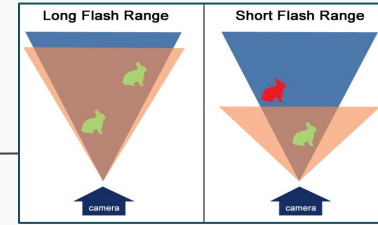- 3.3 Reporting options

Camera

ID: species, individuals

Presence

Richness

Distribution

Abundance

Densities

Purpose / Targeted species

Which habitat

Day vs Night vision

Distance, Width, Height

Use of Lights. LED, IR
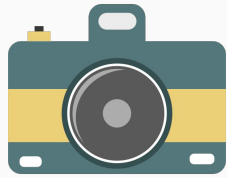
Trigger mechanism, Speed

Pictures, Bursts, Video

Long Flash Range

Short Flash Range

camera

camera

Link to MyWild

Red Glow Camera Traps
Click to continue

No Glow Camera Traps
Click to continue

White Flash Camera Traps
Click to continue

Camera

Share options

- Download
- Push to
- Pull from
- API specifications

Data transfer

Camera

Data transfer

Software package

- **Storage + Process flow**
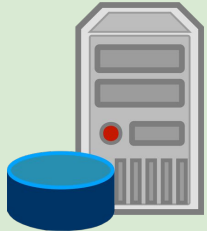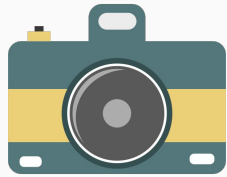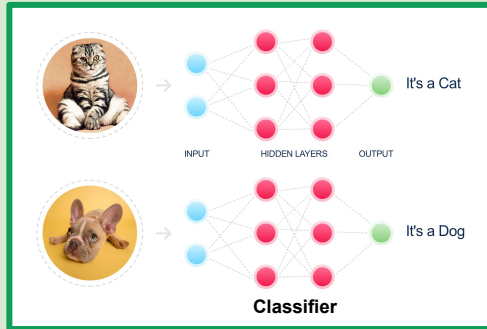
Camera

Data transfer

Software package

- Storage + Process flow
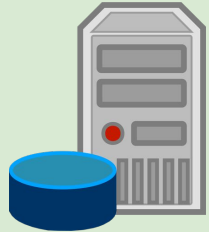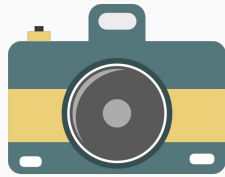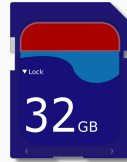- **One or more Classifiers**

It's a Cat

It's a Dog

INPUT   HIDDEN LAYERS   OUTPUT

Classifier

Camera

Data transfer

ID: species, individuals

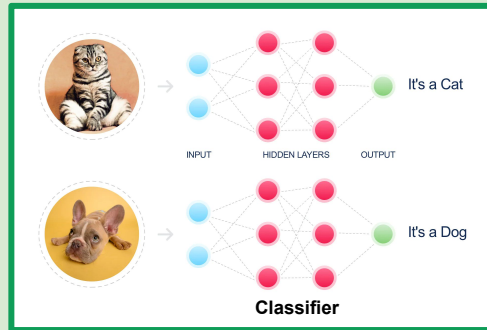Presence

Richness

Distribution
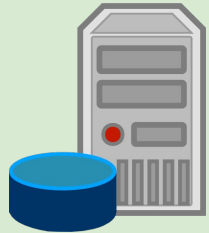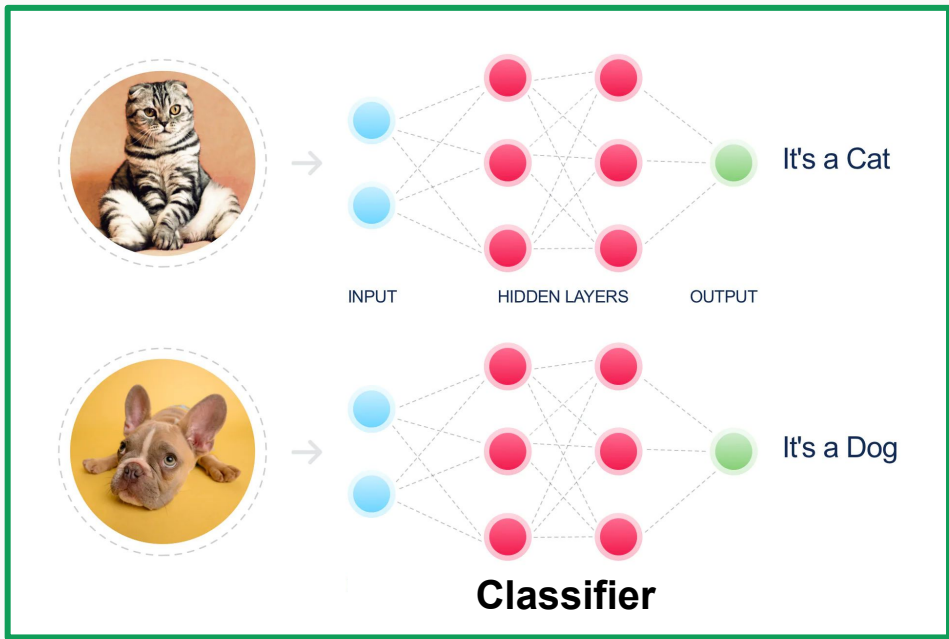
Abundance

Densities

Software package

- Storage + Process flow
- One or more classifiers
- **Analysis & Reporting**

UX: Siloed vs Skills

It's a Cat

INPUT   HIDDEN LAYERS   OUTPUT
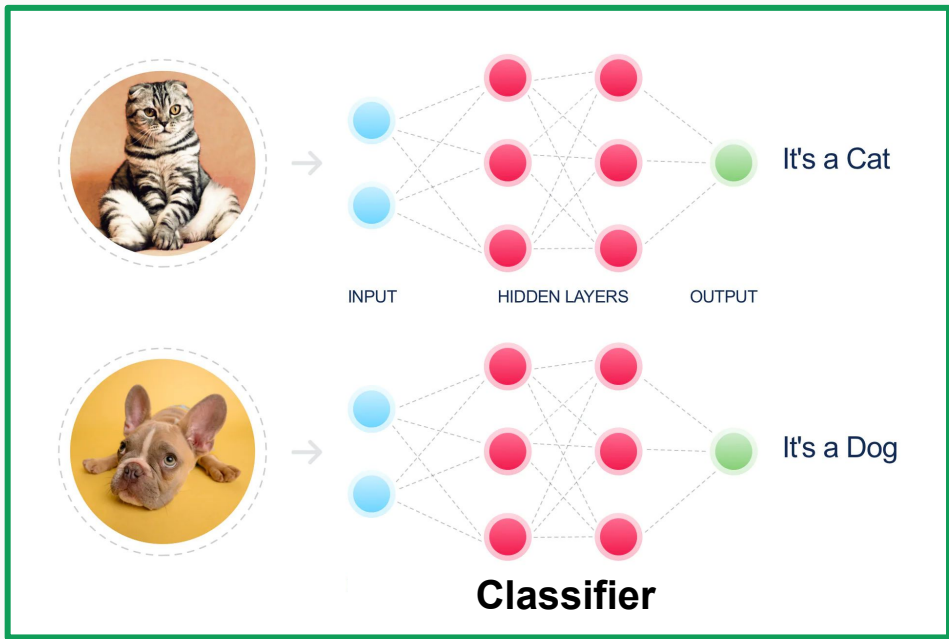
It's a Dog

Classifier

Examples of classifiers:

- Microsoft's Mega Detector (objects)
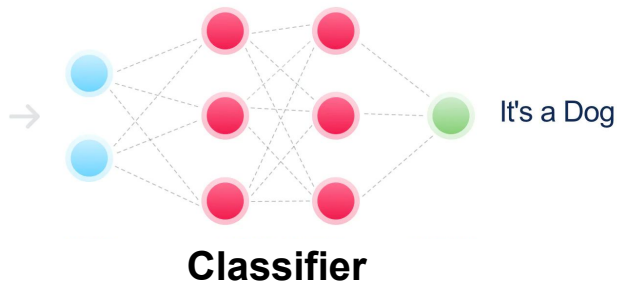- Deepfaune (European species)
- Giraffe Spotter (individuals)
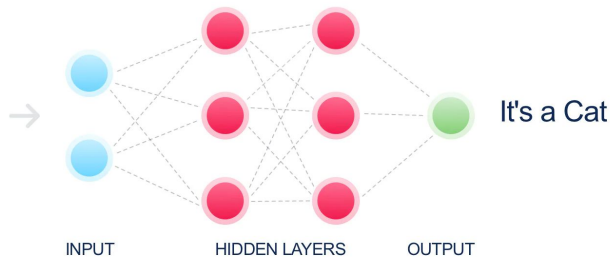
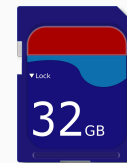Training, Execution or Both?
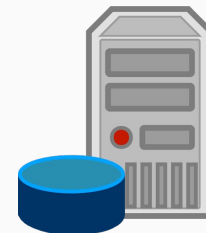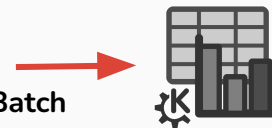
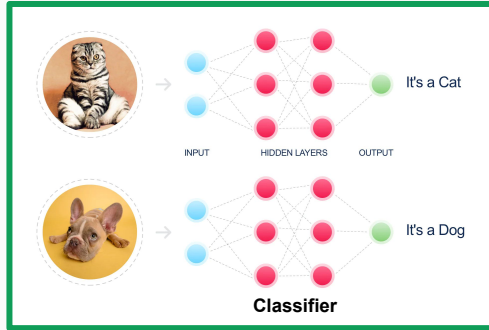Execution

- Which purpose?
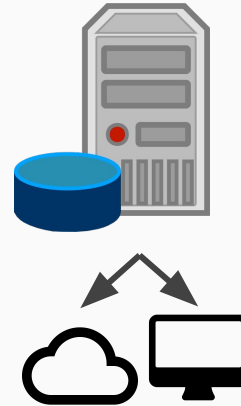
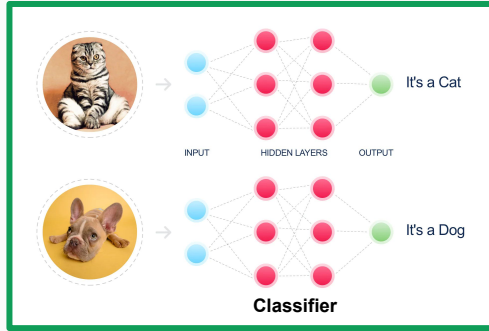- Which species?

Real-time (alerting)?

Which habitat?
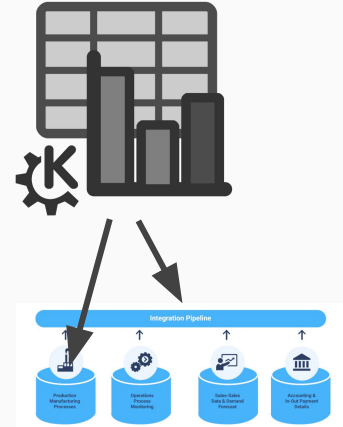
Also videos?

Ownership rights and sharing?

Performance?

Cost?

Security?

Human in the loop?

Easy to learn and use?

Export options

Purpose → Species recognition / Individual recognition / Count

Classifier available?
- Yes → Real-time?
- No → Sufficient skills? Sufficient no. of images?

Sufficient skills? Sufficient no. of images?
- Yes → Develop classifier
- No → Outsource

Outsource → Develop classifier

Real-time?
- Yes → List A
- No → In the Cloud?

In the Cloud?
- Yes → List B
- No → List C

Check software package: Fixed or Flex Classifiers?

List A · List B · List C
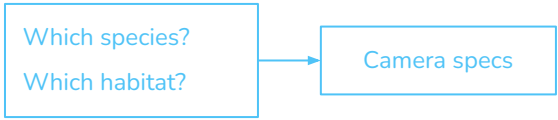
Other considerations
- Easy of use
- Performance
- Data sharing
- Cost
- Security
- Silo vs Integrated (taxonomies)
- Export options

Which species? Which habitat? → Camera specs

Decision tree to help you to take an informed decision

Solution Lists
in progress and excluding ecological analysis modules

A-List
Real-time in the Cloud
Wild.ID

Wildlife Protection Solutions

...

B-List
Batch in the Cloud
Agouti

Camelot

EcoSecrets

eMammal

Panorama

PyTorchWildlife

TrapTagger

Trapper

Wild.ID

Wildlife Insights

...

C-List
Batch on Desktop
Aardwolf

Camelot

Camera Base

Cascadia

Cpw Photo Warehouse

Deepfaune

DigiCam

EcoAssist

TimeLaps2

Wild.ID

...

Other considerations
- **Easy of use**
- **Performance**
- **Data sharing**
- **Cost**
- **Security**
- **Silo vs Integrated (taxonomies)**
- **Export options**

Which species?

Which habitat?

Camera specs

Classifier available?

Save the Dates!

🖥️ **Next Webinar**
27.02.2025
Online

🎤 **Nature FIRST Conference**
25. & 26.06.2025
Ouwehands Dierenpark, Rhenen, NL

Join us and Register Today!