

Recommendations for a European IKB database



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LIFE Against Bird Crime

Objective: significantly reduce illegal killing, trapping and taking of birds in the EU and neighbouring Mediterranean region

Objective

Produce detailed technical recommendations for the development of a EU-level bird crime database

Literature review and stakeholder consultation



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WEB MEDIA
SOLUZIONI E SERVIZI WEB

Towards a European IKB
Database

BirdLife INTERNATIONAL
UDRUGA / ASSOCIATION

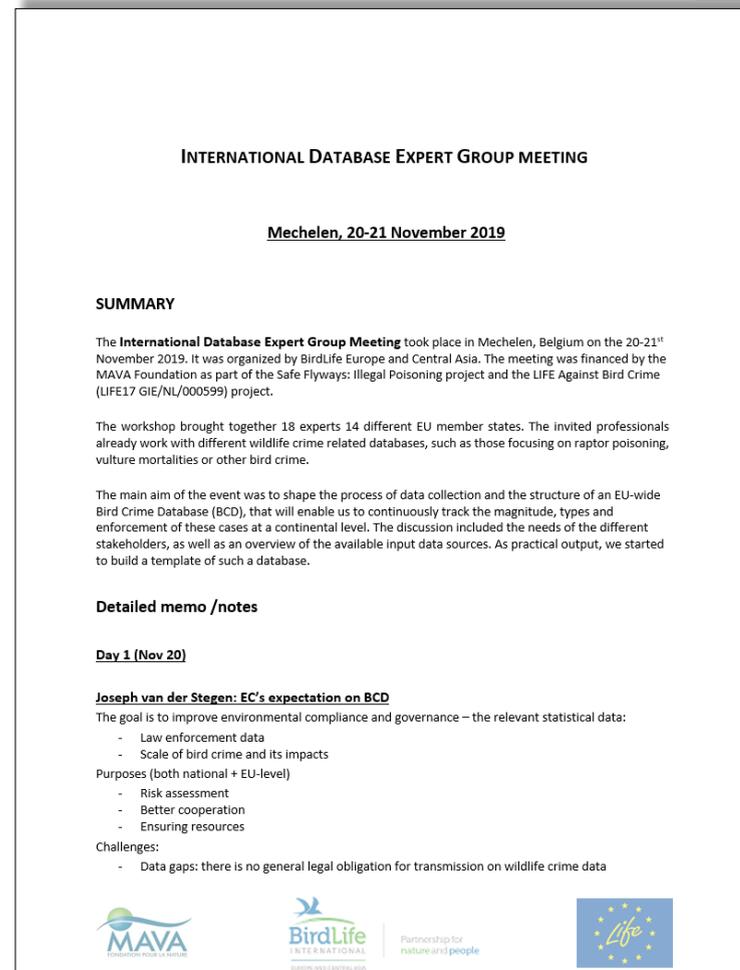
BIOM

BirdLife INTERNATIONAL
HELLNIC ORNITHOLOGICAL SOCIETY

BirdLife Cyprus

ZIPU

TECHNICAL REPORT



INTERNATIONAL DATABASE EXPERT GROUP MEETING

Mechelen, 20-21 November 2019

SUMMARY

The **International Database Expert Group Meeting** took place in Mechelen, Belgium on the 20-21st November 2019. It was organized by BirdLife Europe and Central Asia. The meeting was financed by the MAVA Foundation as part of the Safe Flyways: Illegal Poisoning project and the LIFE Against Bird Crime (LIFE17 GIE/NL/000599) project.

The workshop brought together 18 experts 14 different EU member states. The invited professionals already work with different wildlife crime related databases, such as those focusing on raptor poisoning, vulture mortalities or other bird crime.

The main aim of the event was to shape the process of data collection and the structure of an EU-wide Bird Crime Database (BCD), that will enable us to continuously track the magnitude, types and enforcement of these cases at a continental level. The discussion included the needs of the different stakeholders, as well as an overview of the available input data sources. As practical output, we started to build a template of such a database.

Detailed memo /notes

Day 1 (Nov 20)

Joseph van der Stegen: EC's expectation on BCD

The goal is to improve environmental compliance and governance – the relevant statistical data:

- Law enforcement data
- Scale of bird crime and its impacts

Purposes (both national + EU-level)

- Risk assessment
- Better cooperation
- Ensuring resources

Challenges:

- Data gaps: there is no general legal obligation for transmission on wildlife crime data

MAVA
FONDATION POUR LA NATURE

BirdLife
THE BIRD PROGRAM

Partnership for
nature and people

LIFE

Stakeholders

LIFE Successful Wildlife Crime
Prosecution in Europe (SWIPE)

LIFE Nature Guardians

LIFE PannonEagle

CMS and Bern Convention

CITES

Literature review and stakeholder consultation

Different legislation between countries

Many countries/regions do not have an IKB database

(Un)willingness of some stakeholders to share data

Existing databases involve different institutions (GA, NGO, law enforcement, recovery centers) who have different objectives

Different types of cases and are included

Different additional information is included (date, location, land tenure or management, law enforcement agency, illegal method employed, species ID level, etc.)

Not always included the stage of prosecution/sentencing

Very different platforms (online/offline, paper)

Harmonization/Standardization between local/regional/national databases is very difficult

Database scope & concept

Simplest possible DB that is useful – IKB scoreboard

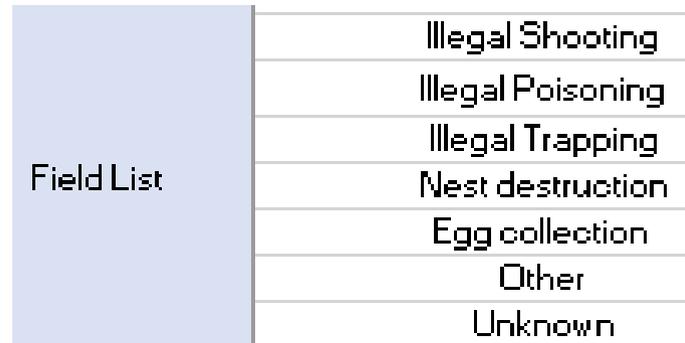
Database will form part of a platform – DB + web portal



Scope

Taxa – Only birds

Cases – Illegal killing



| 0 | 1 | 2 | 3 |
|--|---|--|---|
| <p>IKB cases:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Are not prosecuted before criminal courts <input type="checkbox"/> Are not subject to sanctions under administrative or other penalty regime <input type="checkbox"/> IKB cases are not recorded and not accessible to other prosecutors/judges | <p>IKB cases:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Usually take² over two years to conclude in the case of criminal proceedings <input type="checkbox"/> Usually take² over six months to conclude in the case of administrative or other penalty regime <input checked="" type="checkbox"/> Generally result in over 50% acquittals³ <input type="checkbox"/> Are handled by general prosecutors and judges not specialized in wildlife crime <input type="checkbox"/> IKB cases are recorded but not easily accessible to other prosecutors/judges | <p>IKB cases:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Usually take over one year but under two years to conclude in the case of criminal proceedings <input checked="" type="checkbox"/> Usually take over three months but under six months to conclude in the case of administrative or other penalty regime <input type="checkbox"/> Generally result in less than 25% acquittals <input checked="" type="checkbox"/> Are mostly handled by general prosecutors and judges that tend to specialize in wildlife crime cases <input checked="" type="checkbox"/> IKB cases are recorded and are accessible to other prosecutors/judges nationally | <p>IKB cases:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Usually take under one year to conclude in the case of criminal proceedings <input type="checkbox"/> Usually take under three months to conclude in the case of administrative or other penalty regime <input type="checkbox"/> Generally result in less than 10% acquittals <input type="checkbox"/> Are mostly handled by specialized prosecutors and judges <input type="checkbox"/> IKB cases are recorded and accessible to other prosecutors/judges regionally at the geo-graphics scope of the IKB Scoreboard |

Ownership

High profile institution

Excellent relations with key stakeholders

Networking skills

Organization skills to ensure reporting and mainstreaming of IKB information

Not dependent on short term projects, but part of a well-established entity to guarantee long term sustainability of the database

Roles and responsibilities

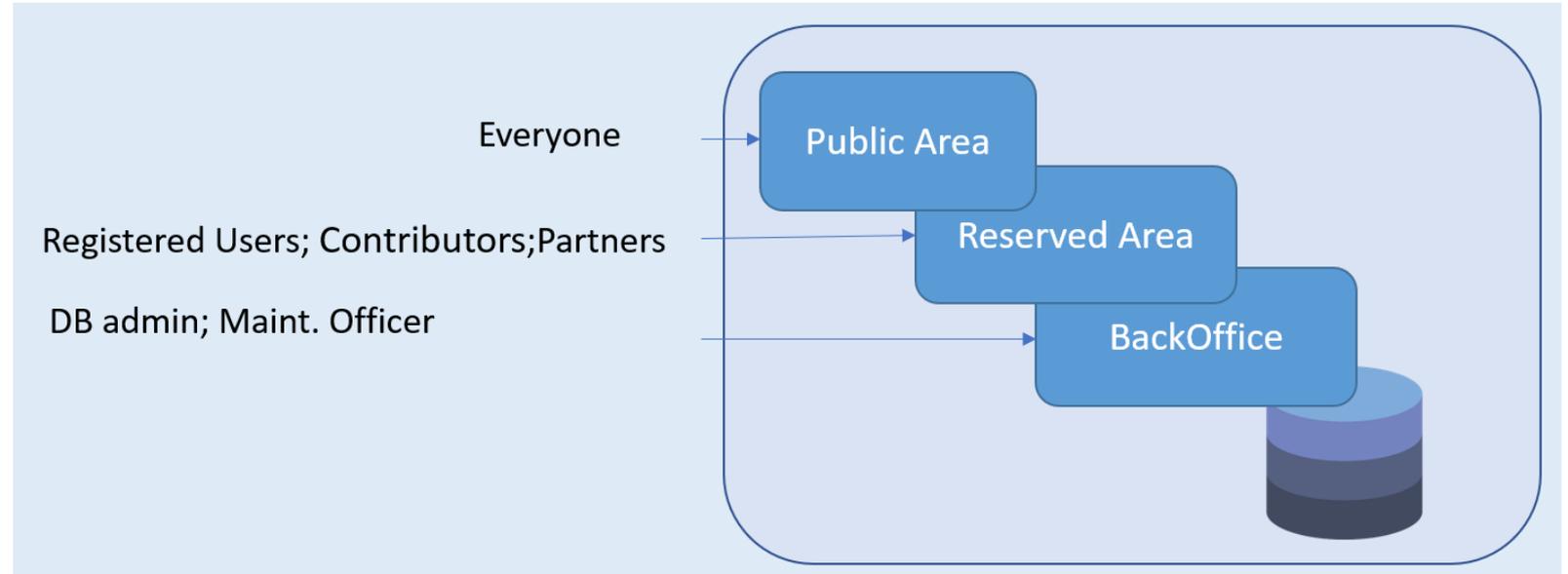
Owner

DB Admin

Partner

Contributor

Registered user

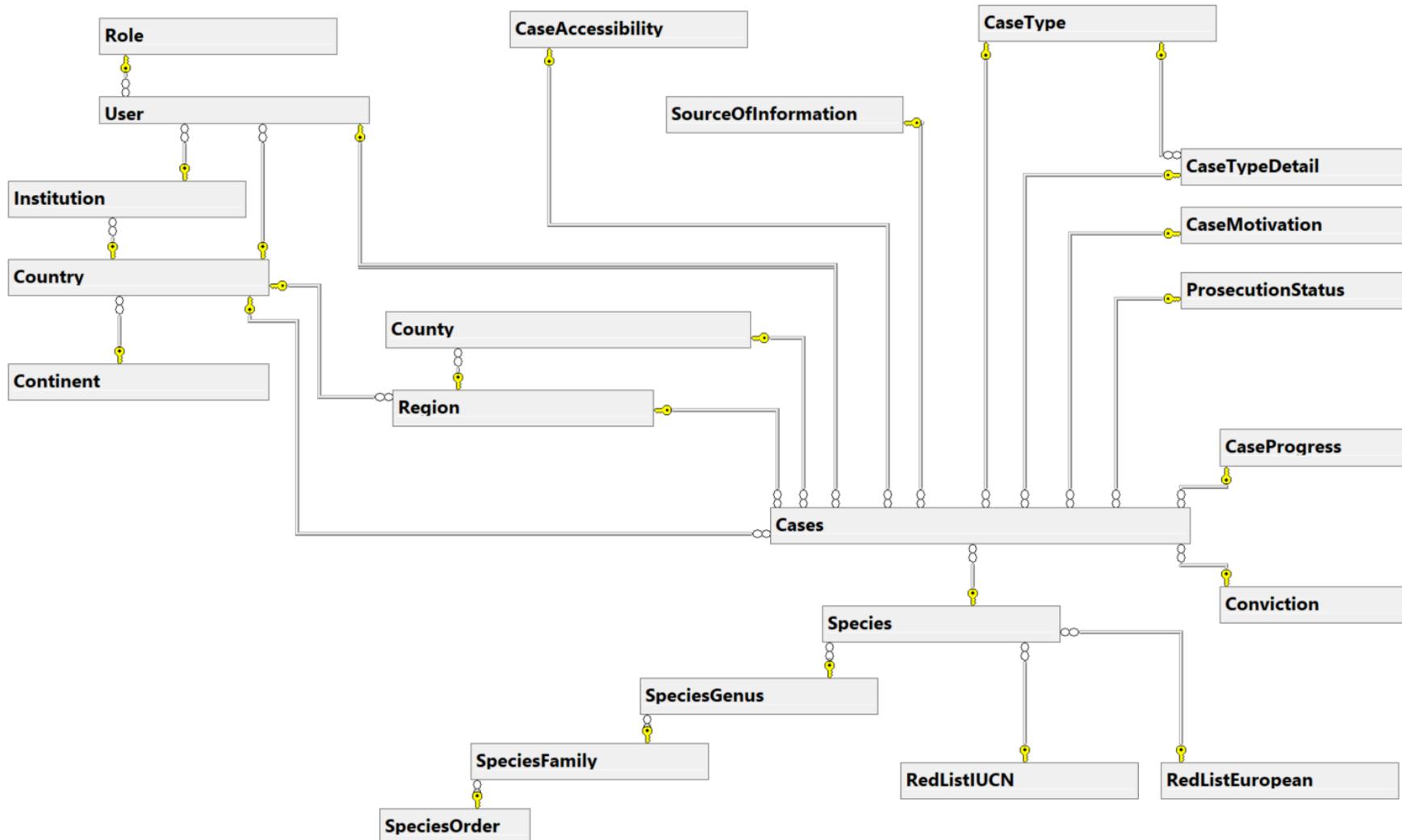


Data fields

The DB is focused on cases and is structured in five levels

- User
- Location (country, region, county, coordinates)
- Species (Order, Family, Genus, IUCN RedList, number)
- Case (type, motivation, source of information)
- Prosecution and conviction (prosecution status, conviction)

Data fields



Technical requirements

- Data must be easy to access and easy to input
- It must be possible to add new data and upload existing records
- Data must be secured and have automatic backups
- The platform must be scalable to dynamically allocate resources to handle data because of the considerable amount of data
- The DB must be available online
- Must allow several users to access it at the same time
- It should be adaptable to tablets and smartphones

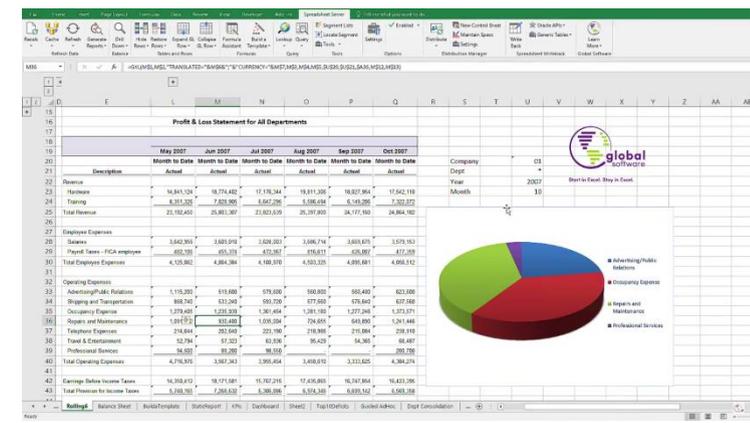
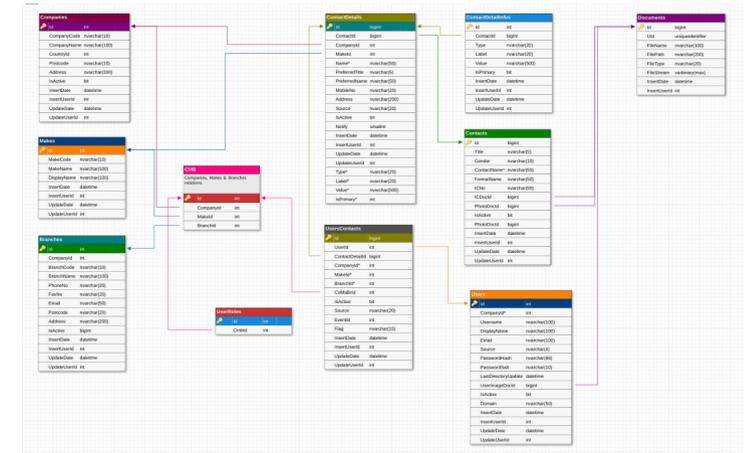
Platform specifications

Advantages of a relational Database vs. spreadsheets:

- Data volume
- Data integrity
- Data shareability
- Data filtering and querying

Choice of DB engine: SQL Express server

Choice of Development platform: ASP Net Core



Storage

Small Scale Cloud computing by a smaller sized cloud hosting service provider

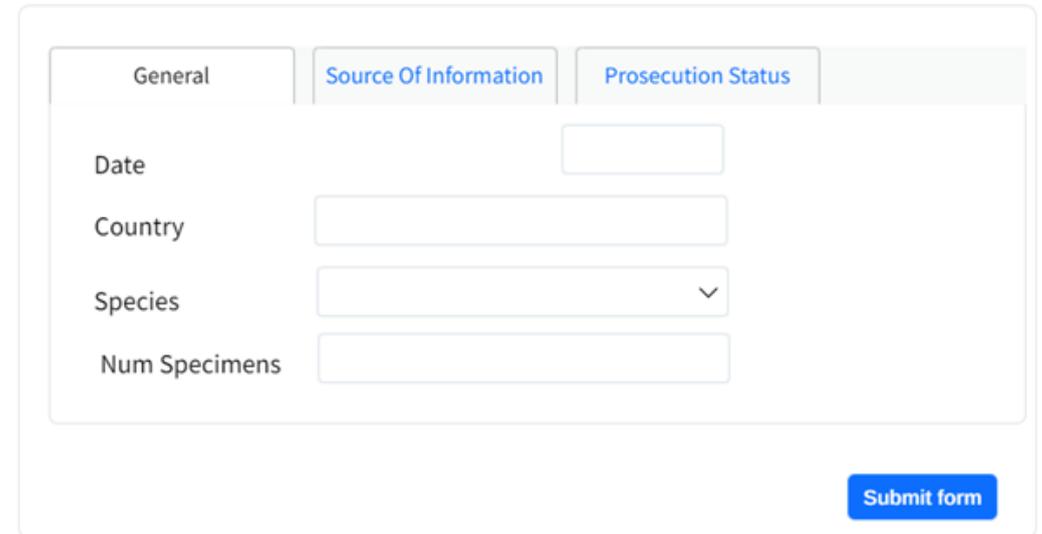
Later can migrate to Azure if requirements increase

Data upload and backoffice

Manual submission of a form for each case

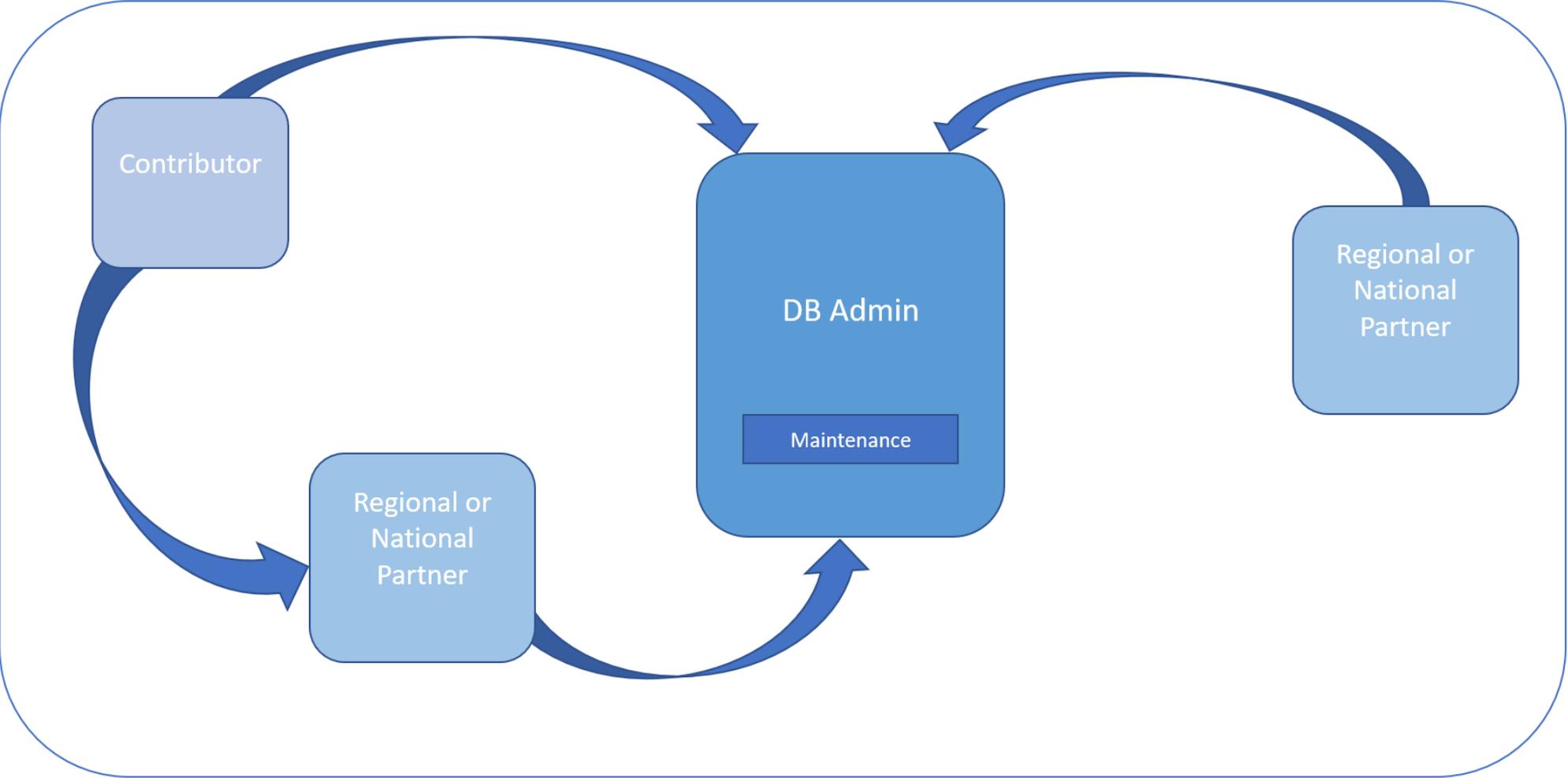
Bulk upload from a pre-configured Excel file

Backoffice – Access by the DB Admin and Maintenance officer

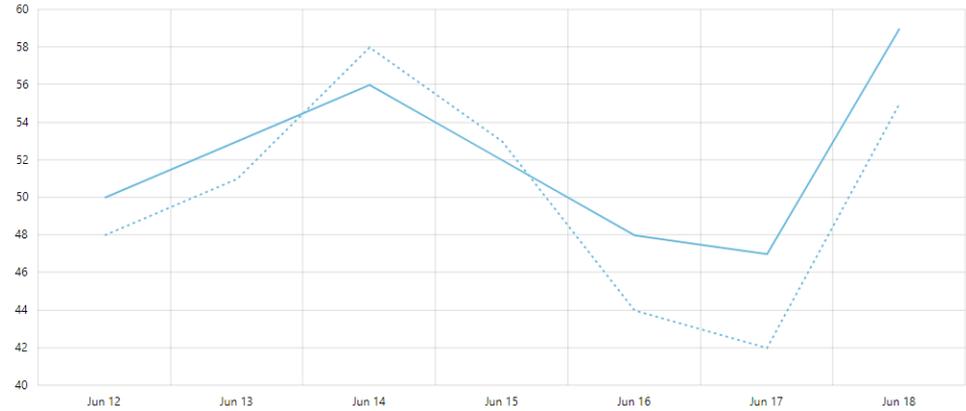
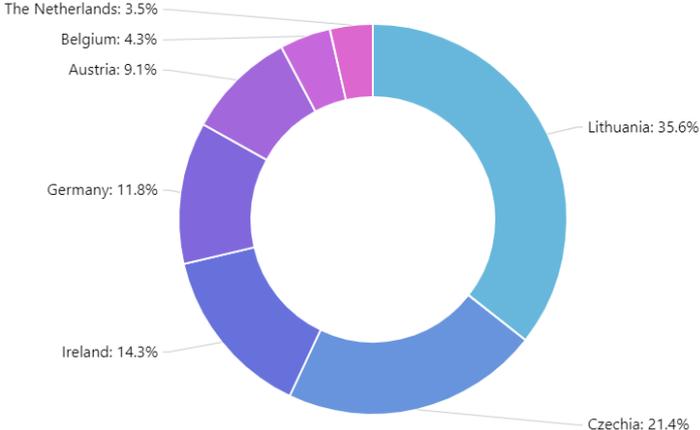
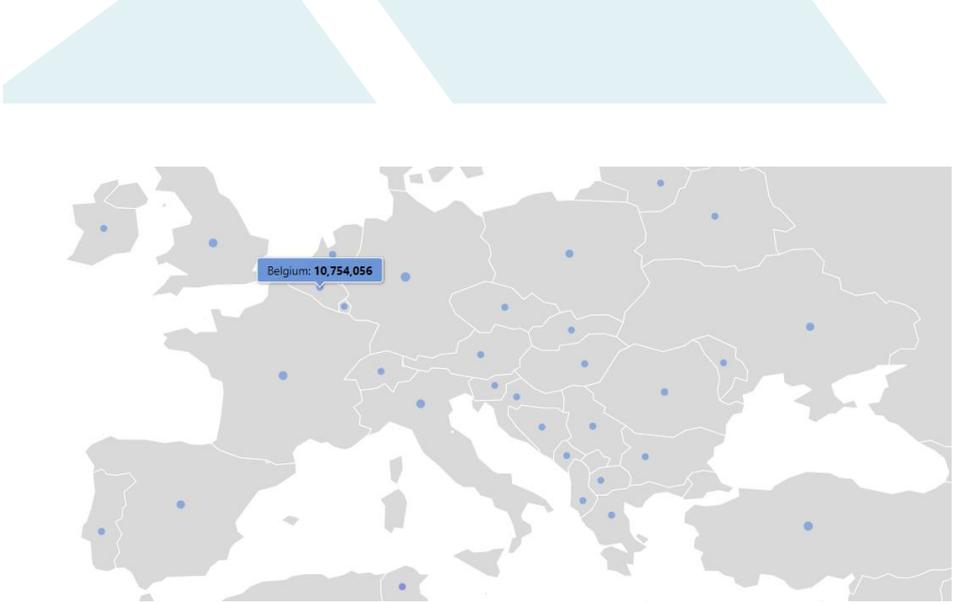
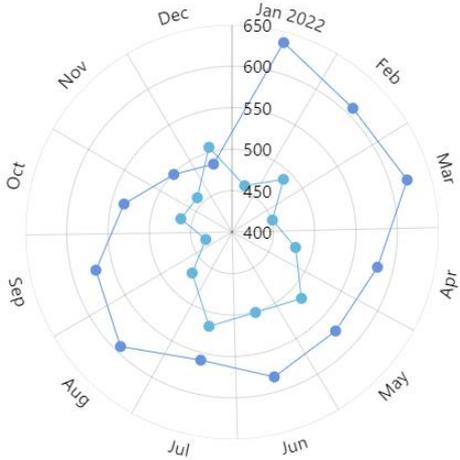
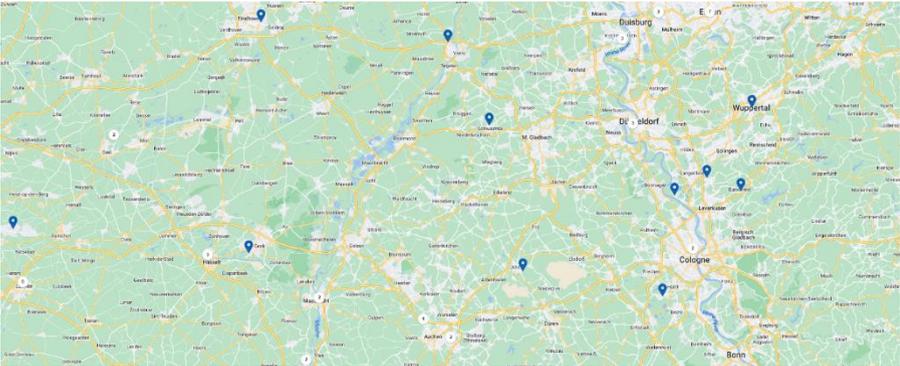


The image shows a screenshot of a web form interface. At the top, there are three tabs: 'General', 'Source Of Information', and 'Prosecution Status'. The 'Source Of Information' tab is currently selected. Below the tabs, there are four input fields: 'Date' (a date picker), 'Country' (a text input), 'Species' (a dropdown menu with a downward arrow), and 'Num Specimens' (a text input). A blue 'Submit form' button is located at the bottom right of the form area.

Data upload



Public area



Financial costs - Implementation

Project team

- Project manager
- UI-UX designer
- Senior software developer
- Junior software developer
- Scientific consultant

Software development licenses

- SQL Server License
- Charting & Mapping Library

Financial costs - Operation

Management and networking costs

Maintenance costs

Hosting services

- Web portal hosting with public access
- Database hosting
- Infrastructure updates
- Weekly backups

Yearly licenses

- Web domain
- SSL certificate

Financial costs - summary

| Description | | Cost estimate implementation (€) | Cost estimate (€/year) |
|--------------------------------|-------------------------------|----------------------------------|--------------------------|
| Implementation | Platform development | [90 000 : 120 000] | - |
| | Licenses | [4 000 : 6 000] | - |
| Managing and networking | Platform promotor (part time) | - | [15 000 : 25 000] |
| | Traveling and subsistence | - | [10 000 : 20 000] |
| Maintenance | Hosting & yearly licenses | - | [400 : 800] |
| | Maintenance officer | - | [10 000 : 20 000] |
| TOTAL | | [94 000 :126 000] | [35 400 : 65 800] |

STRIX

Innovation and Sustainability

Obrigado