Recommendations for a European IKB database

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Photo: W. AlBahry

Background – Illegal Killing of Birds

IKB is one of the main threats faced by birds

Cumulative effects with other threats

The problem is unique in each country

Scope

Awareness and Capacity Building against Bird Crime in Priority Flyway Countries
LIFE Against Bird Crime

LIFE17 GIE/NL/000599

FLIGHT FOR SURVIVAL

LIFE Against Bird Crime

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

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Objective

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

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Literature review and stakeholder consultation
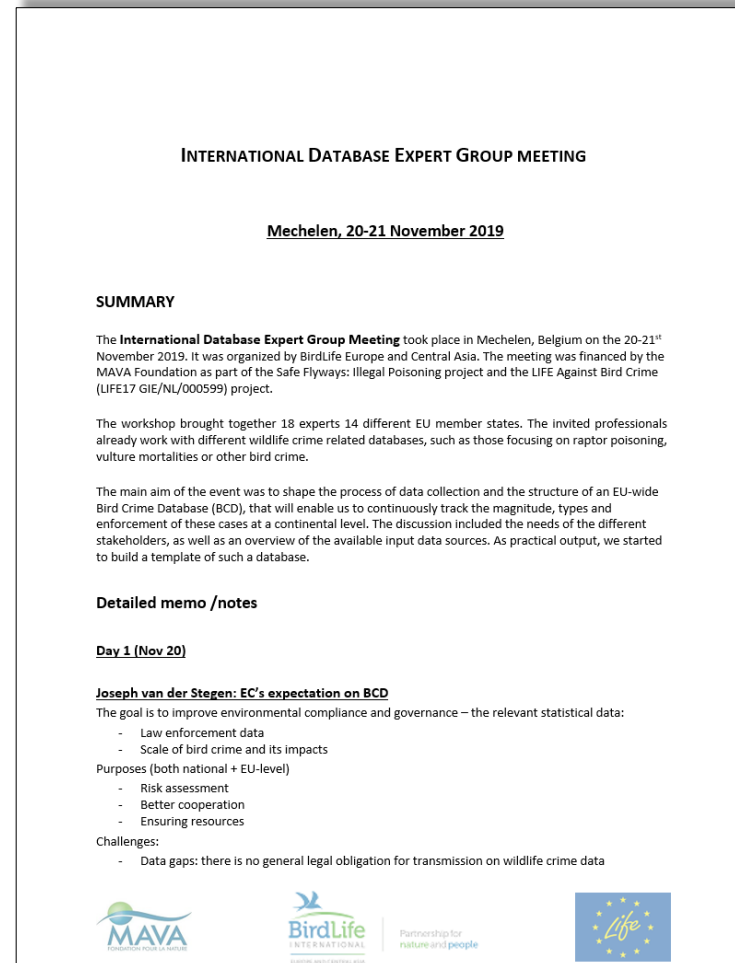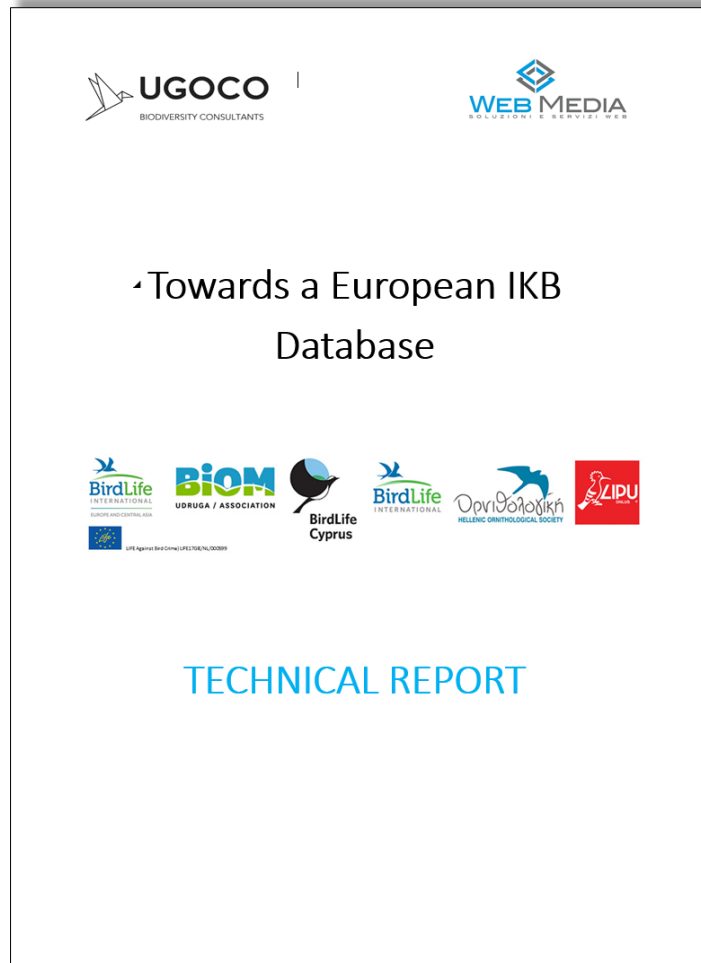
Stakeholders

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

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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

Field List
- Illegal Shooting
- Illegal Poisoning
- Illegal Trapping
- Nest destruction
- Egg collection
- Other
- Unknown

0	1	2 ✓	3
IKB cases:	IKB cases:	IKB cases:	IKB cases:
☐ Are **not** prosecuted before criminal courts	☐ Usually take[1] over **two years** to conclude in the case of criminal proceedings	✓ Usually take over **one year** but under two years to conclude in the case of criminal proceedings	☐ Usually take under **one year** to conclude in the case of criminal proceedings
☐ Are **not** subject to sanctions under administrative or other penalty regime	☐ Usually take[2] over six months to conclude in the case of administrative or other penalty regime	✓ Usually take over **three months** but under six months to conclude in the case of administrative or other penalty regime	☐ Usually take under **three months** to conclude in the case of administrative or other penalty regime
☐ IKB cases are not recorded and not accessible to other prosecutors/judges	✓ Generally result in over 50% acquittals[3]	☐ Generally result in **less than 25%** acquittals	☐ Generally result **in less than 10%** acquittals
	☐ Are handled by general prosecutors and judges **not** specialized in wildlife crime	✓ Are **mostly** handled by general prosecutors and judges that **tend to specialize** in wildlife crime cases	☐ Are **mostly** handled by specialized prosecutors and judges
	☐ IKB cases are recorded but not easily accessible to other prosecutors/judges	✓ IKB cases are recorded and are accessible to other prosecutors/judges nationally	☐ IKB cases are recorded and accessible to other prosecutors/judges regionally at the geographic 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
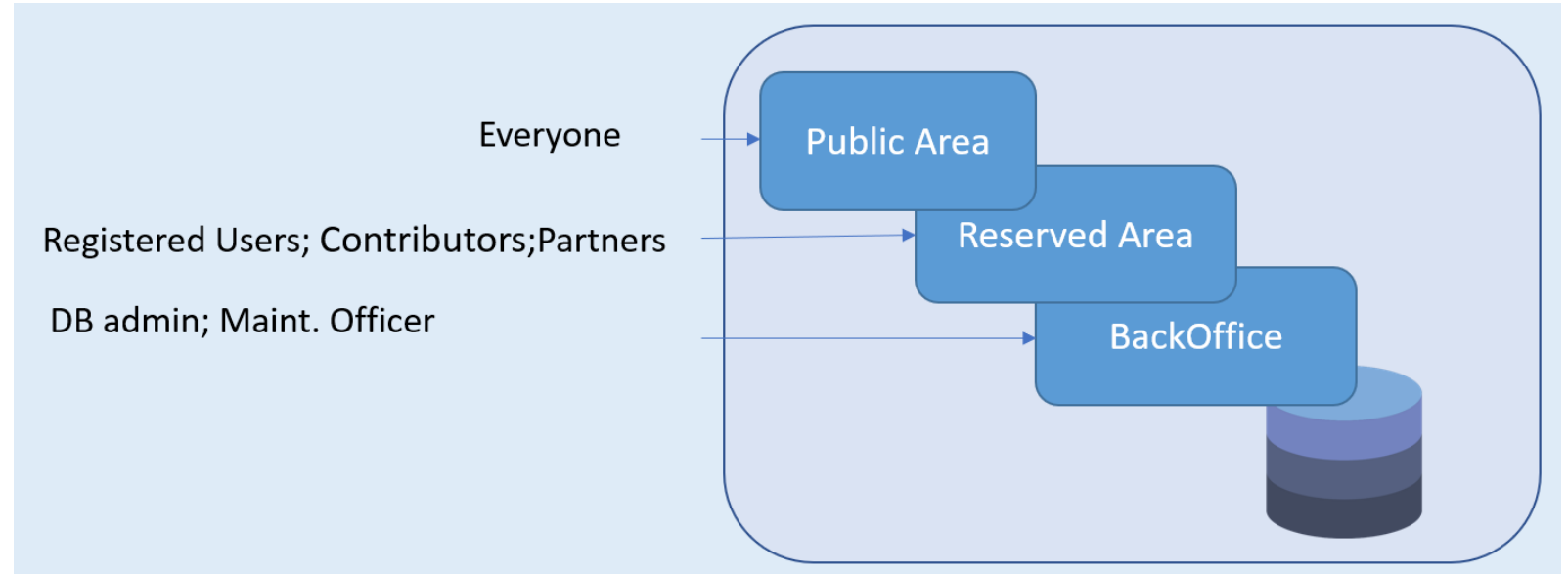
Roles and responsibilities

Owner

DB Admin

Partner

Contributor

Registered user

Everyone → Public Area

Registered Users; Contributors;Partners → Reserved Area

DB admin; Maint. Officer → BackOffice

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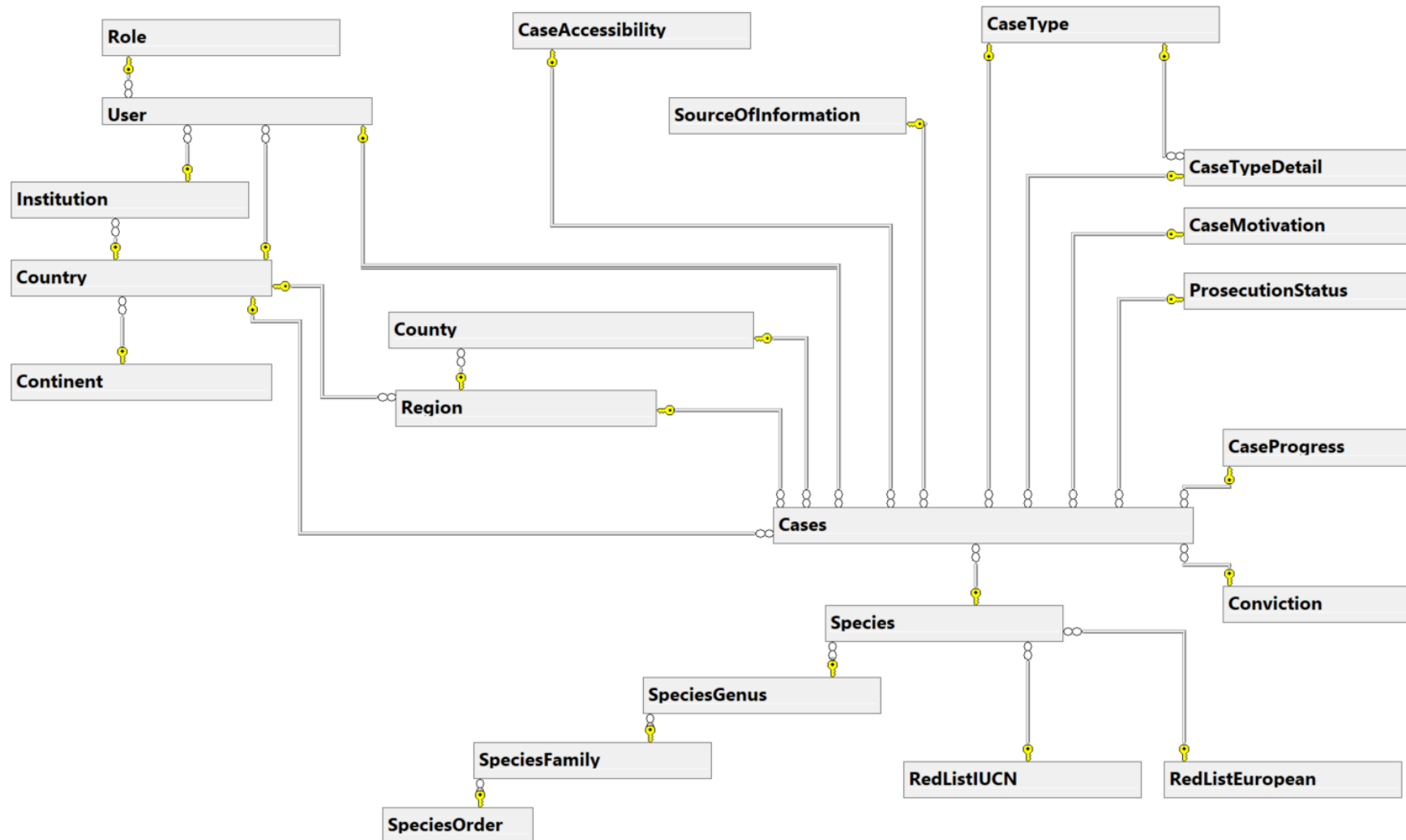Innovation and Sustainability

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)

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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

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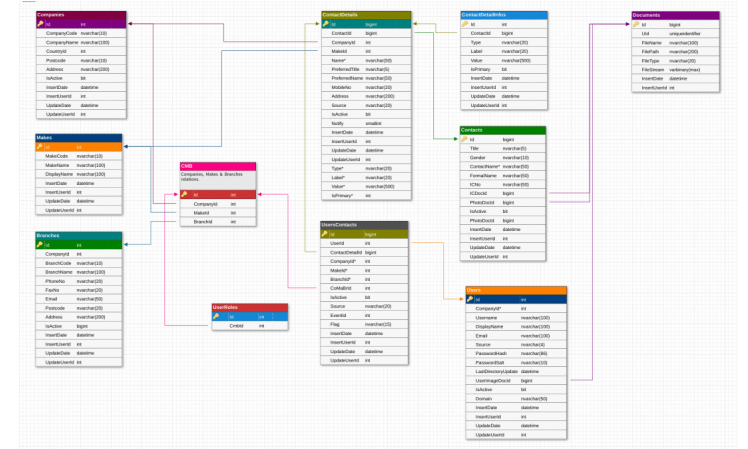Innovation and Sustainability

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

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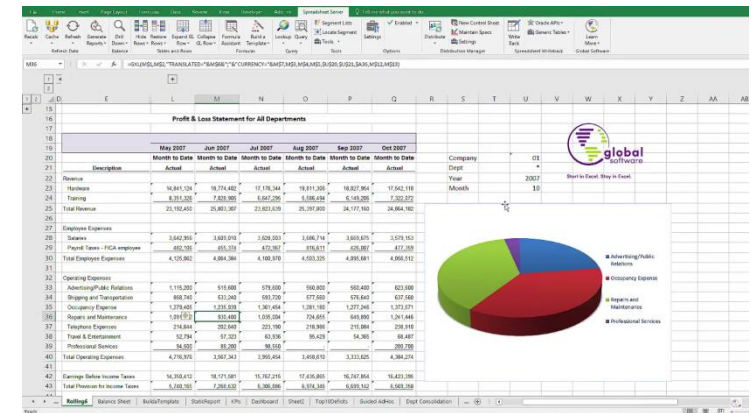
Storage

Small Scale Cloud computing by a smaller sized cloud hosting service provider
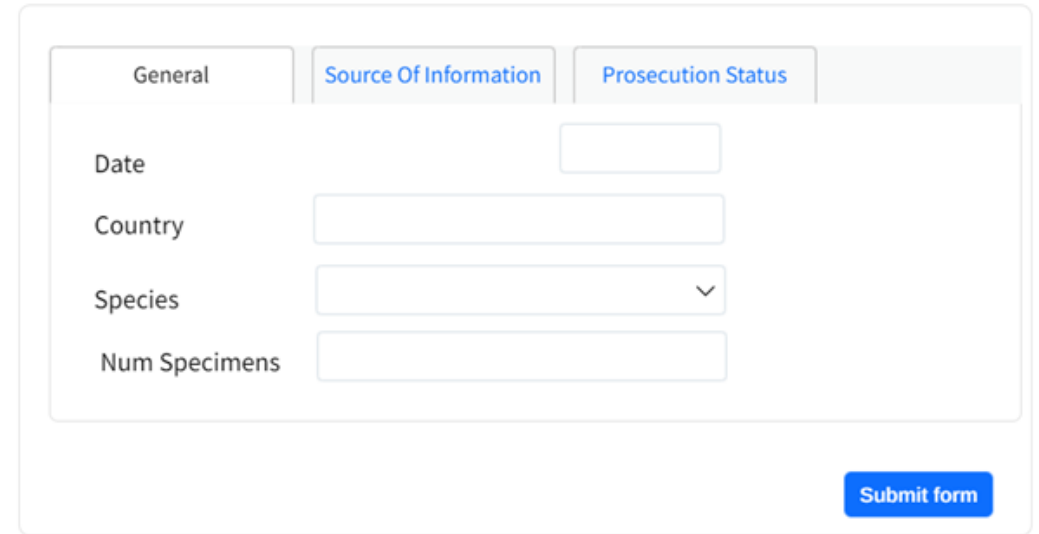
Later can migrate to Azure if requirements increase

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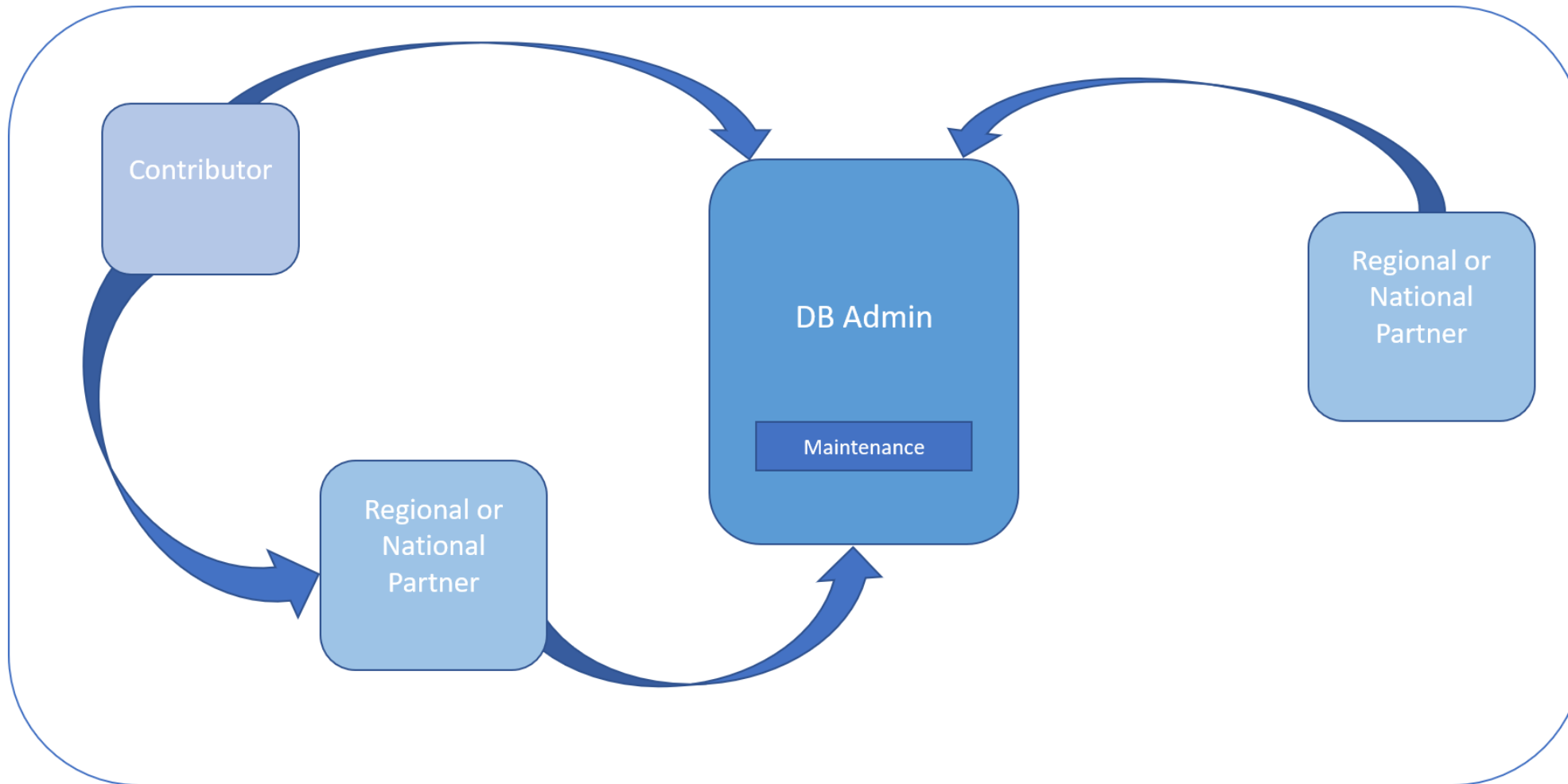# Data upload and backoffice

Manual submission of a form for each case

Bulk upload from a pre-configured Excel file

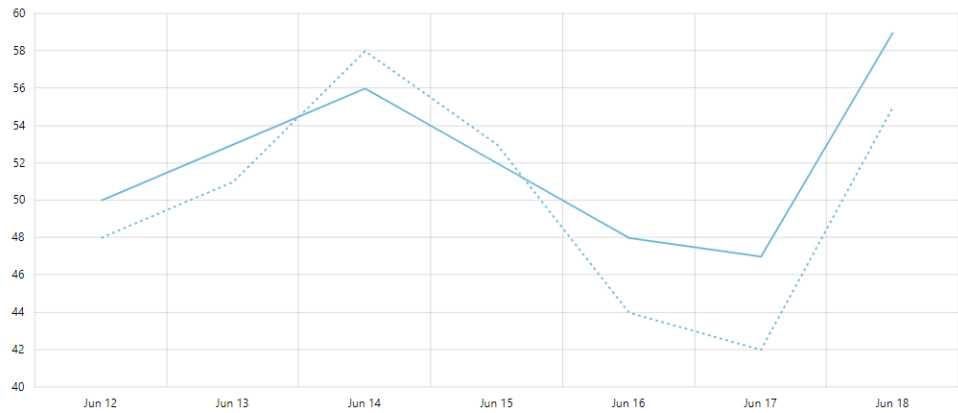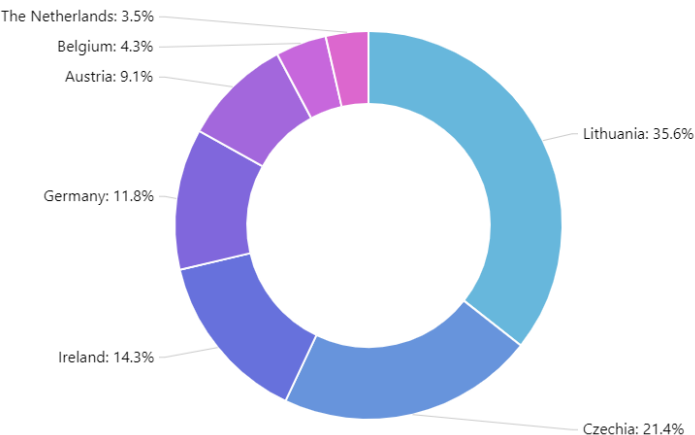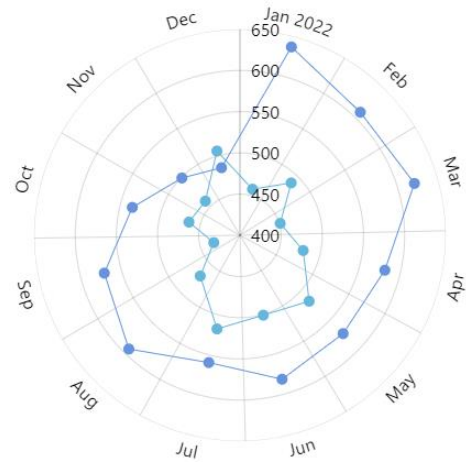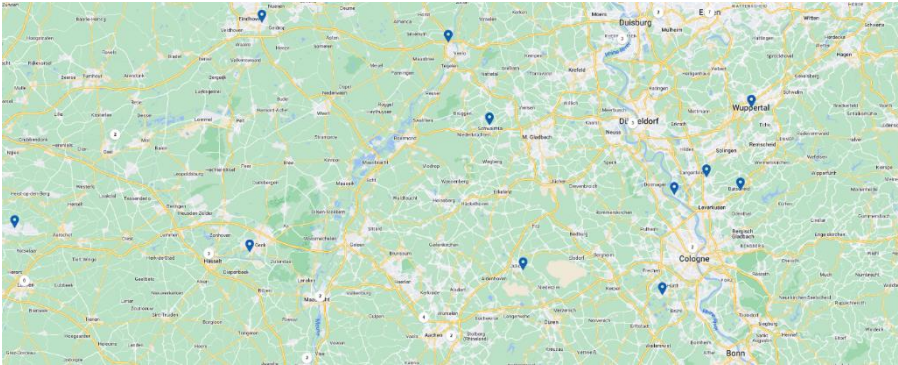Backoffice – Access by the DB Admin and Maintenance officer

General	Source Of Information	Prosecution Status

Date

Country

Species

Num Specimens

Submit form

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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

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Financial costs - Operation

Management and networking costs

Maintenece costs

Hosting services

- Web portal hosting with public access

- Database hosting

- Infrastructure updates

- Weekly backups

Yearly licenses

- Web domain

- SSL certificate

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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]**

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Obrigado