EUROPEAN TRACKING NETWORK

Tracking aquatic animals at a pan-European scale

• RESEARCH • COLLABORATION • DATA • TECH DEVELOPMENT • COMPATIBILITY •

Getting your STRAITS data into the ETN data platform

STRAITS STAFF TRAINING

17/10/2023

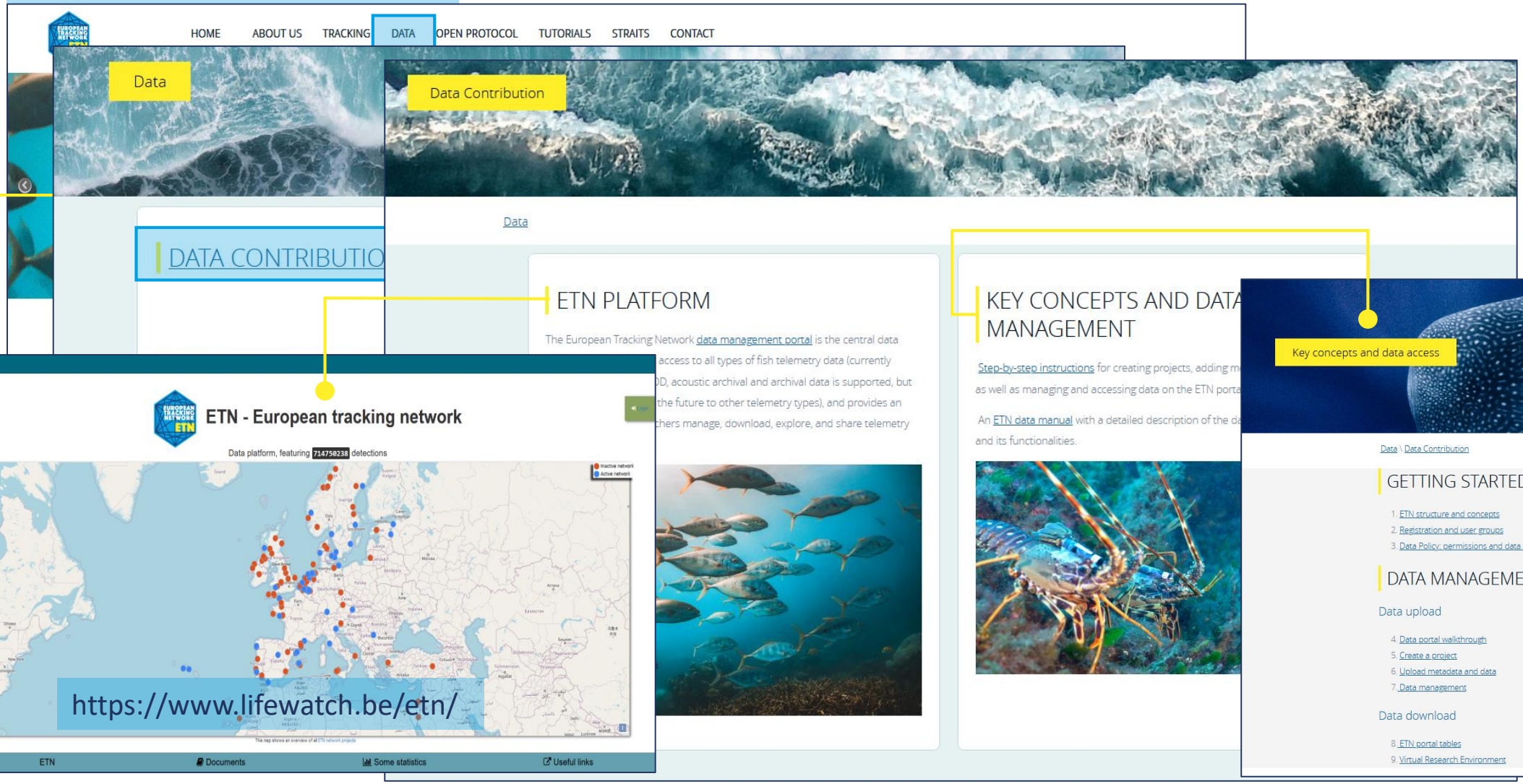
• RESEARCH • COLLABORATION • DATA • TECH DEVELOPMENT • COMPATIBILITY •

EUROPEAN TRACKING NETWORK

Our mission is to track aquatic animals across Europe to better understand, protect and manage them.

ETN - website & data platform

europeantrackingnetwork.org/en



EUROPEAN TRACKING NETWORK

Our mission is to track aquatic animals across Europe to better understand, protect and manage them.

ETN portal dataflow

DATA UPLOAD

PROJECT METADATA

WHO
WHEN
WHERE
HOW

DATA IMPORT

Metadata Templates

DATA STORAGE

PostgreSQL
PostGIS
Spatial Database

DATA VISUALIZATION

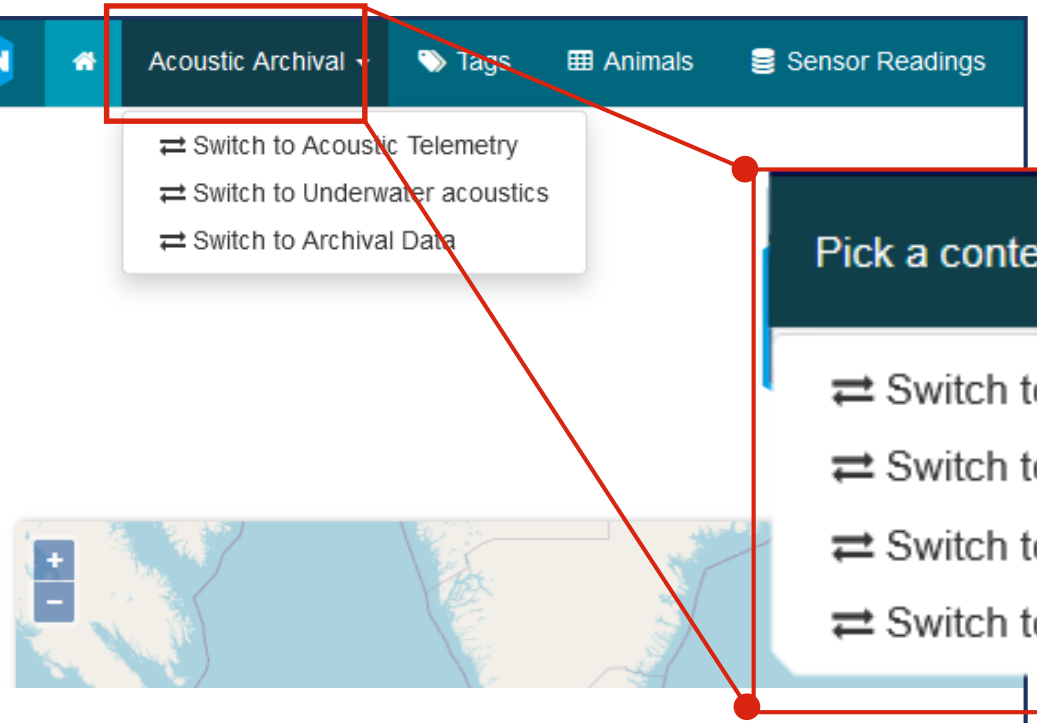
GeoServer — Shiny web application

LifeWatch data explorer

DATA ANALYSIS

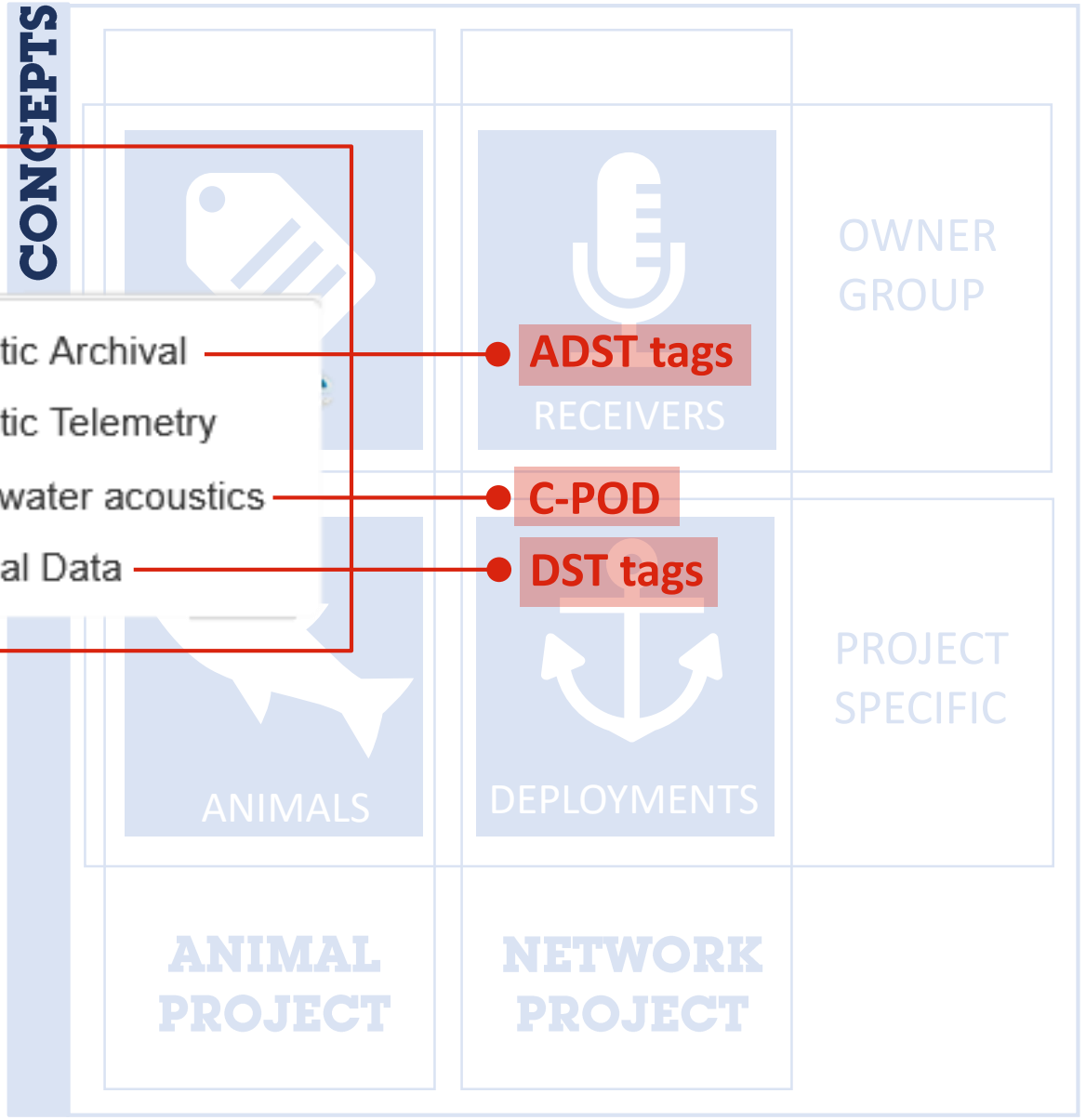
R-script repository — RStudio server — ETN package

CONTEXTS in ETN

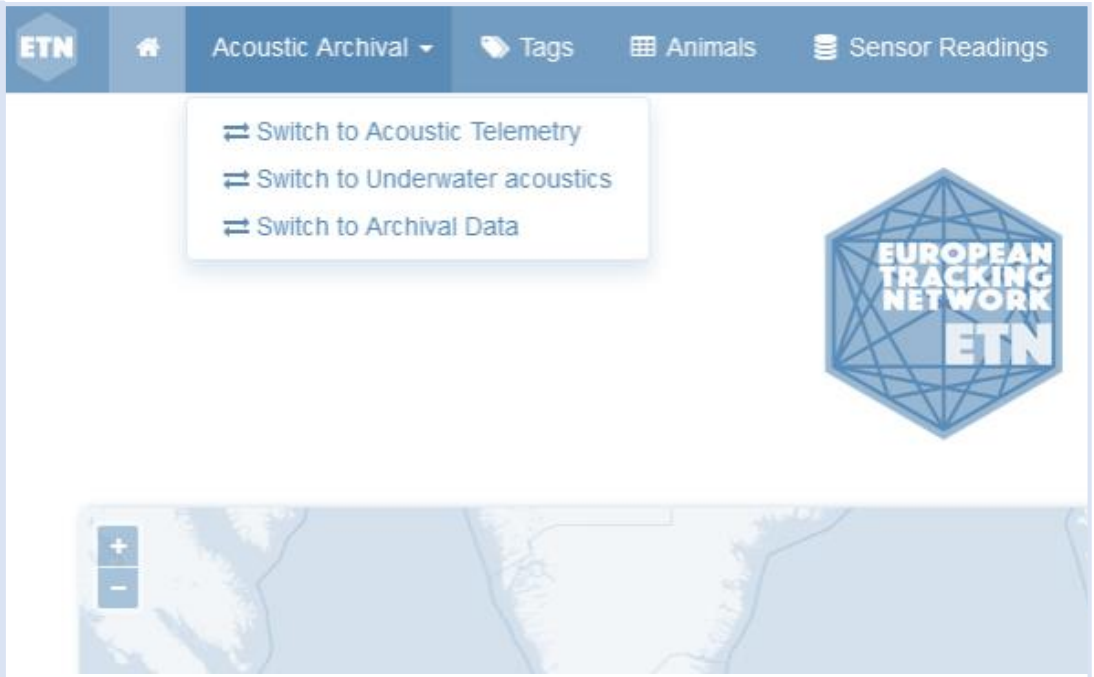


- Context = technology type
- Carefully check before starting your work
- Different context = different metadata groups and fields

CONCEPTS



CONTEXTS in ETN



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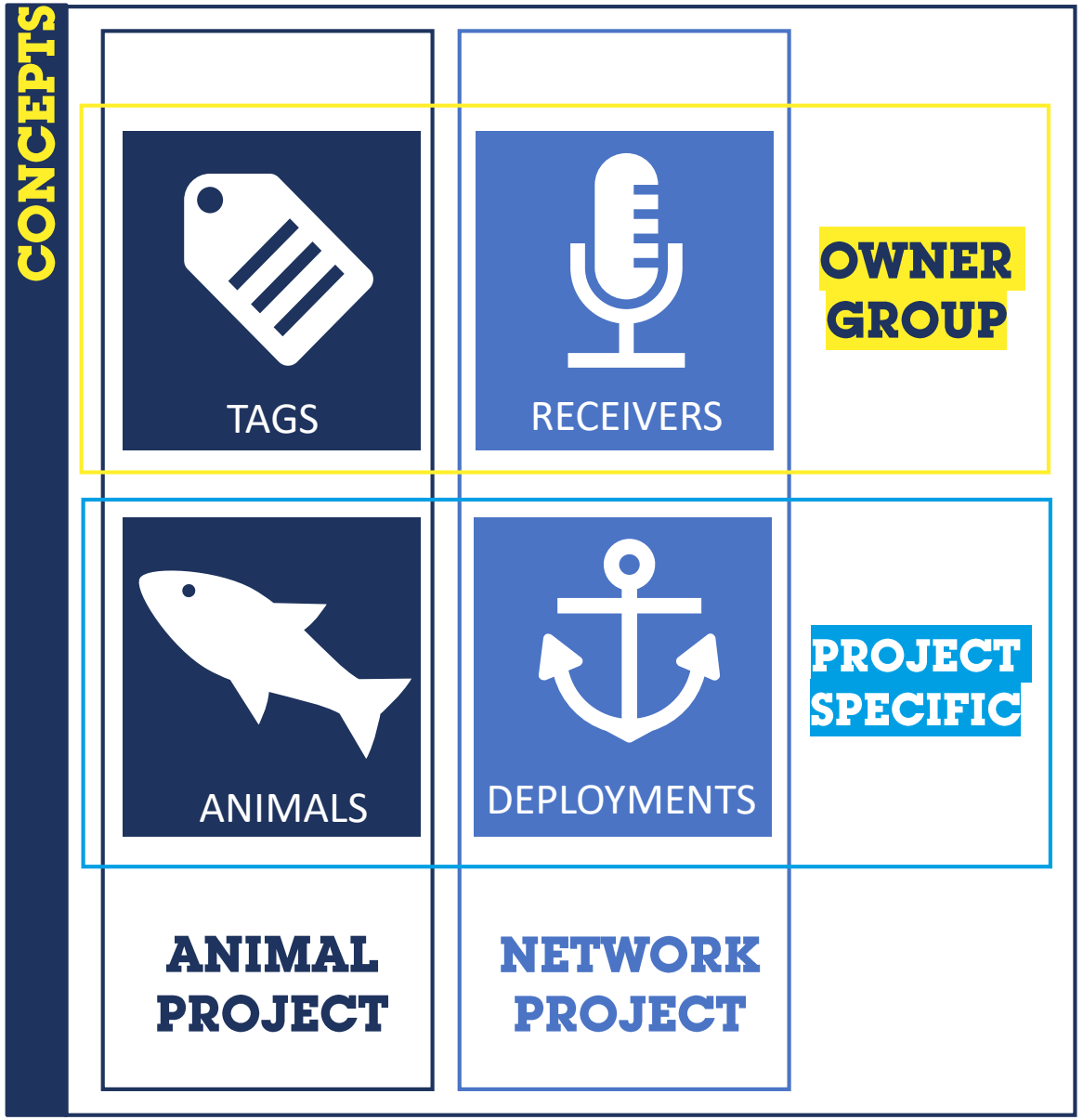
- Carefully check before starting your work
- Different context = different metadata groups and fields

CONCEPTS



REGISTER

RShiny/RStudio registration

Please register by filling out the form below. Once you have submitted your registration, you will receive a confirmation email.

- [ ] my details are listed in IMIS

First name*
Last name*
Password*
Confirm password*
E-mail*

Request access to*

- [ ] Access to European ocean Tracking Network (ETN) data (ETN_data)
- [ ] Able to use the IMIS fairchecker (Rshiny app) (fairchecker)
- [ ] Labeling Images (MOC) (labeling_app)
- [ ] Full access to Lifewatch UvA-BiTS birds data (Lifewatch_birds)
- [ ] Download raw data from Flemish Banks Monitoring Network, via Rshiny... (myb)
- [x] Access Rstudio server (RStudio)

Purpose

- [ ] * I agree that my personal data is processed in accordance with the General Data Protection Regulation (GDPR)

Register

STARTING...

er to the ETN portal

iny.lifewatch.b
nt?p=register

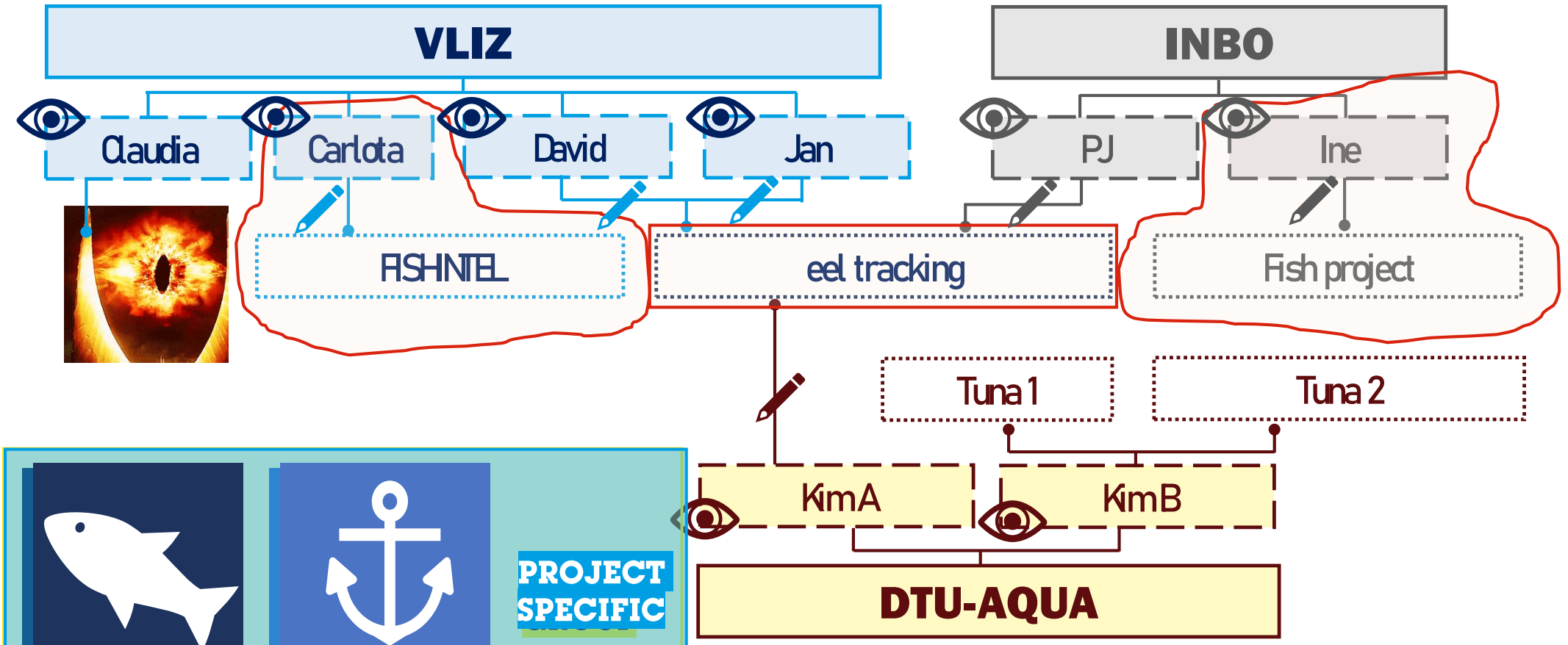
PROJECTS

METADATA

DETECTIONS

REGISTER

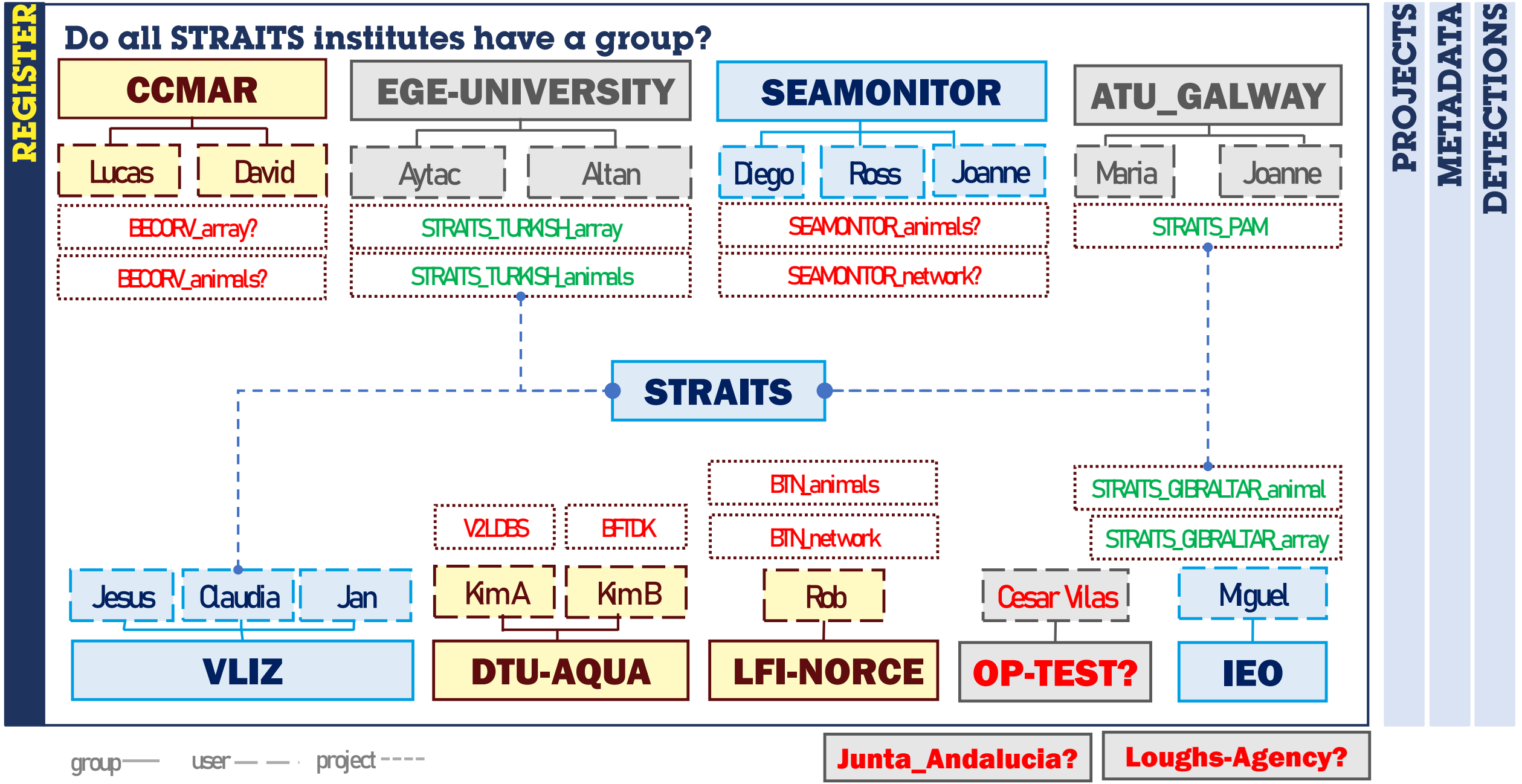
Once registered you will get linked to a group...



PROJECTS

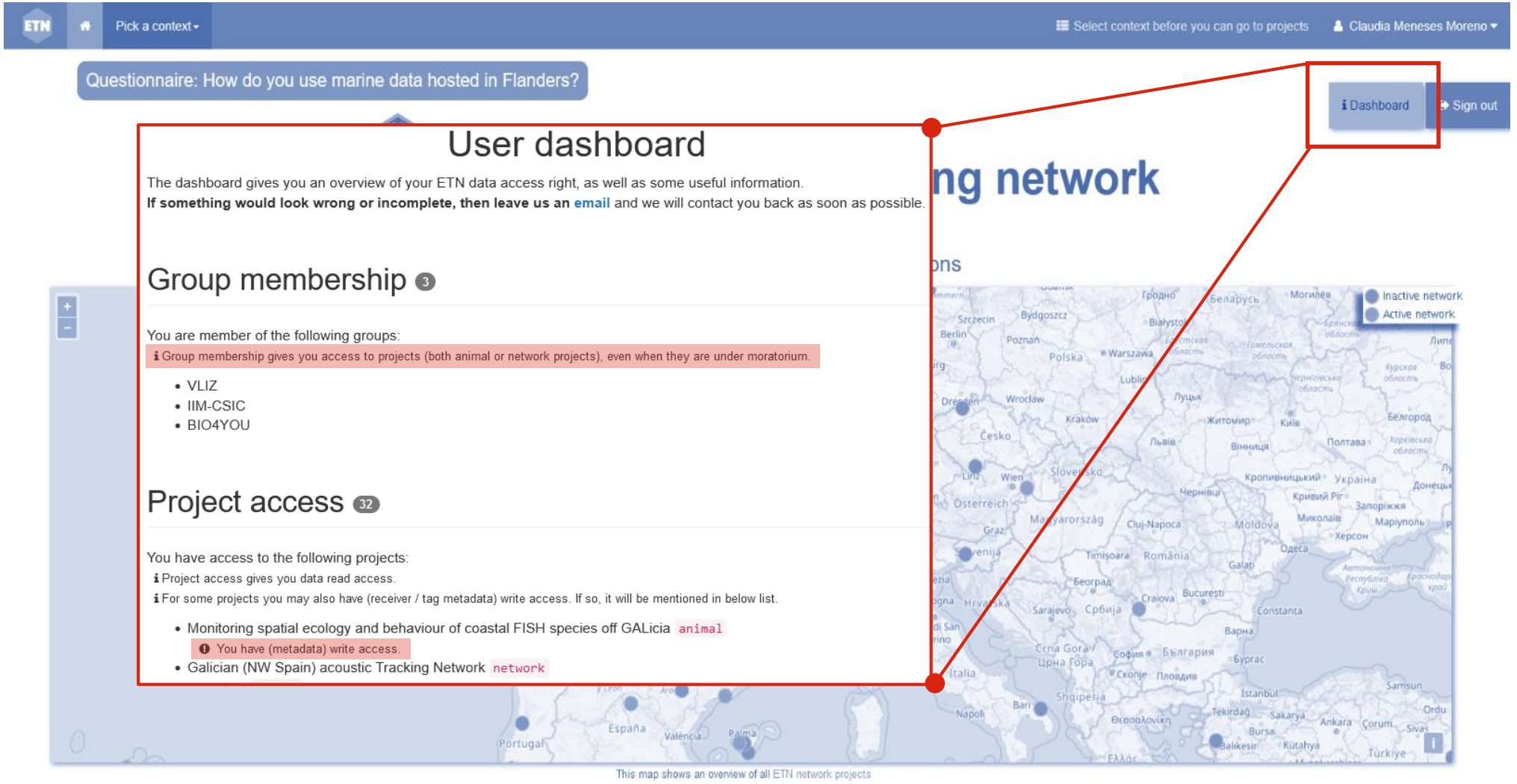
METADATA

DETECTIONS


REGISTER
Do all STRAITS institutes have a group?
CCMAR
Lucas
David
BECORV_array?
BECORV_animals?
EGE-UNIVERSITY
Aytac
Altan
STRAITS_TURKISH_array
STRAITS_TURKISH_animals
SEAMONITOR
Diego
Ross
Joanne
SEAMONITOR_animals?
SEAMONITOR_network?
ATU_GALWAY
Maria
Joanne
STRAITS_PAM
STRAITS
Jesus
Claudia
Jan
VLIZ
V2LDBS
BFTDK
KimA
KimB
DTU-AQUA
BTN_animals
BTN_network
Rob
LFI-NORCE
Cesar Vilas
OP-TEST?
STRAITS_GIBRALTAR_animal
STRAITS_GIBRALTAR_array
Miguel
IEO
PROJECTS
METADATA
DETECTIONS
group
user
project
Junta_Andalucia?
Loughs-Agency?

REGISTER

Check your dashboard.....



PROJECTS

METADATA

DETECTIONS

REGISTER PROJECTS METADATA DETECTIONS

Please fill up the project template...

M = Mandatory, O = Optional	Field	Subfield		Guidelines
BASIC PROJECT INFO				
M	Project Type			Indicate project type. More information about projects in ETN can be found here: https://europeantrackingnetwork.org/en/1-etn-structure-and-concepts
M	Person providing the metadata	name		Name and ORCID-ID (if any) of person providing this metadata record
O		ORCID-ID		
M	Telemetry Type			The type of telemetry used in this project (e.g. acoustic, PIT, DST, pop-up satellite, etc.). Suported in the portal are: acoustic telemetry, acoustic archival, archival data and underwater acoustics.
M	ETN group			The name of the group(s) the data belongs to. Can be the name of an Institute or a division within an Institute (e.g. VLIZ-VMDC). Tag and receiver ownership will be linked to these groups and group members will have reading access rights to all projects within the group.
M	Tracking project title			Title of your tracking project. This can be an existing project title if the project has already been created before. If the project does not exits in the ETN database yet, please consider the following guideline when choosing a title: **Title should cover the content, time period and/or region of the data** (example: *'Acoustic telemetry data for Atlantic cod (Gadus morhua) in the C-Power wind farm in the southern North Sea (Belgium)'*). This title (max 80 characters) will also become the title of the dataset(s) linked to the tracking project.
M	Project short title/acronym			The acronym of the project as it can be looked up in the ETN database (examples: '**Eel_migration_ba**' or '**Fpass_schelde_18_20**' or '**2010_PHD_REUBENS**').
M	Tracking project abstract			Short (max 1000 characters) abstract about the content of th… …blished… landing page alongside the dot on the map and project title
M	Moratorium			Network projects, by default, do not have a moratorium per… …n of… animal projects is 4 years after the realease of the first ani… will be send.
M	OTN Loan?			Does your project uses any receiver from OTN? If yes, i… remember that data should be also sent to OTN.
CONTRIBUTORS				
M	Person 1	name		Name and contact of person responsible for the data a… …er user…

REGISTER

PROJECTS

Please fill up the project template...

How to get your dot(s) on the map:

Step-by-step guide

M = Mandatory, O = Optional	Field	Subfield		Guidelines
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M	Tracking project abstract			Short (max 1000 characters) abstract about the content of the project. This will be published on the ETN landing page alongside the dot on the map and project title.
M	Moratorium			Network projects, by default, do not have a moratorium period. The standard duration of moratorium for animal projects is 4 years after the realease of the first animal. Before end of moratorium a notification will be send.
M	OTN Loan?			Does your project uses any receiver from OTN? If yes, it is okey to upload your data to ETN, but please remember that data should be also sent to OTN.
CONTRIBUTORS				
M	Person 1	name		Name and contact of person responsible for the data and who can be contacted by other users to obtain

Step 5.

What now?

You can upload data specific to animals, receivers and/or detecti your ETN private data p

Start here | Tracking Project metadata | Umbre

Özgül, Aytaç, data creator

Galway Mayo Institute of Technology (GMIT), more, partner

Dalhousie University, more, external adviser

University of Algarve; Faculty of Marine and Environmental Sciences; Centre of Marine Sciences (CCMAR), more, partner

Abecasis, David, data creator

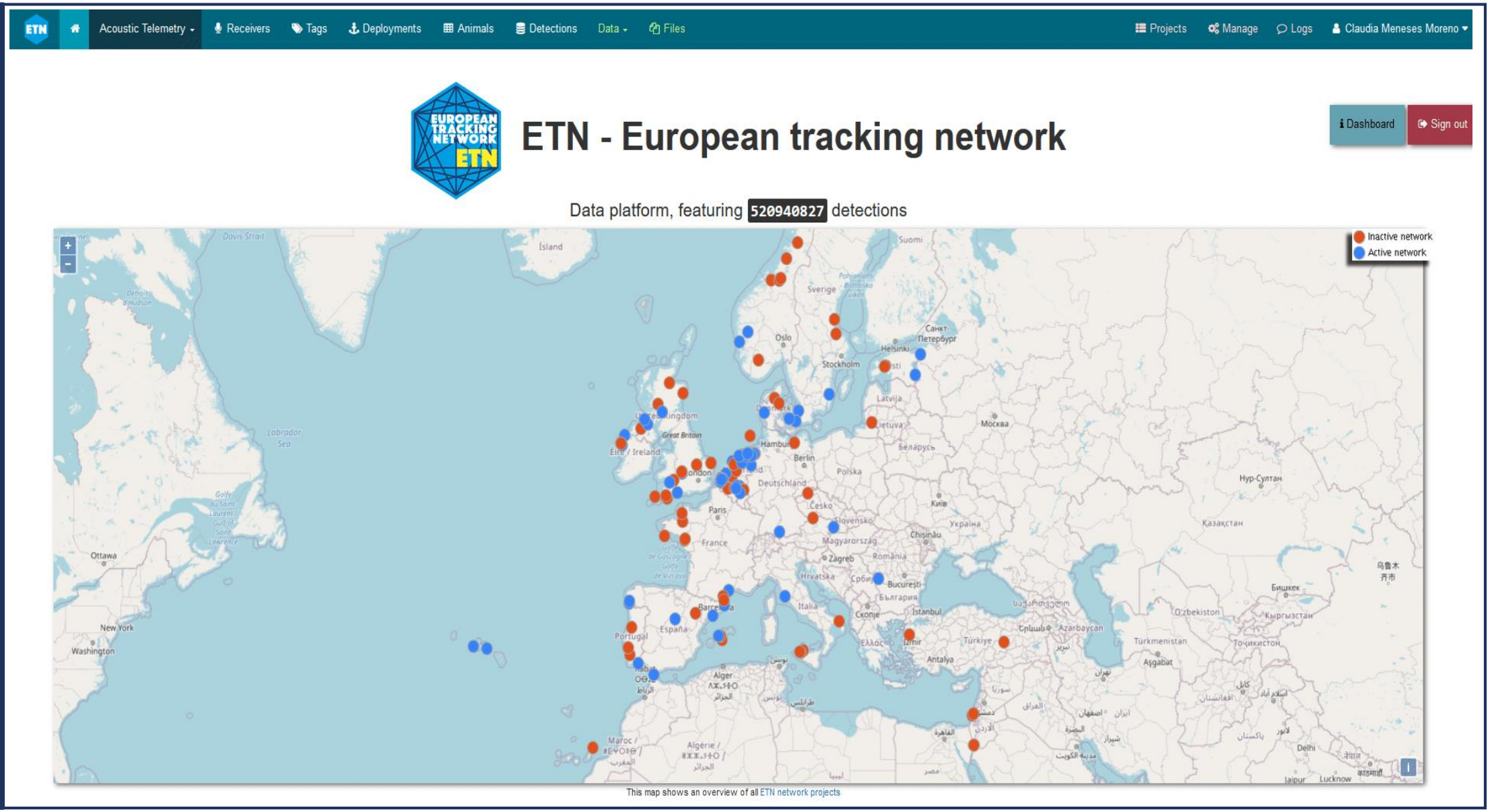
Instituto Andaluz de Investigación y Formación Agraria, Pesquera, Alimentaria y de la Produción Ecológica (IFAPA), more, partner

METADATA

DETECTIONS

REGISTER

PROJECTS



METADATA

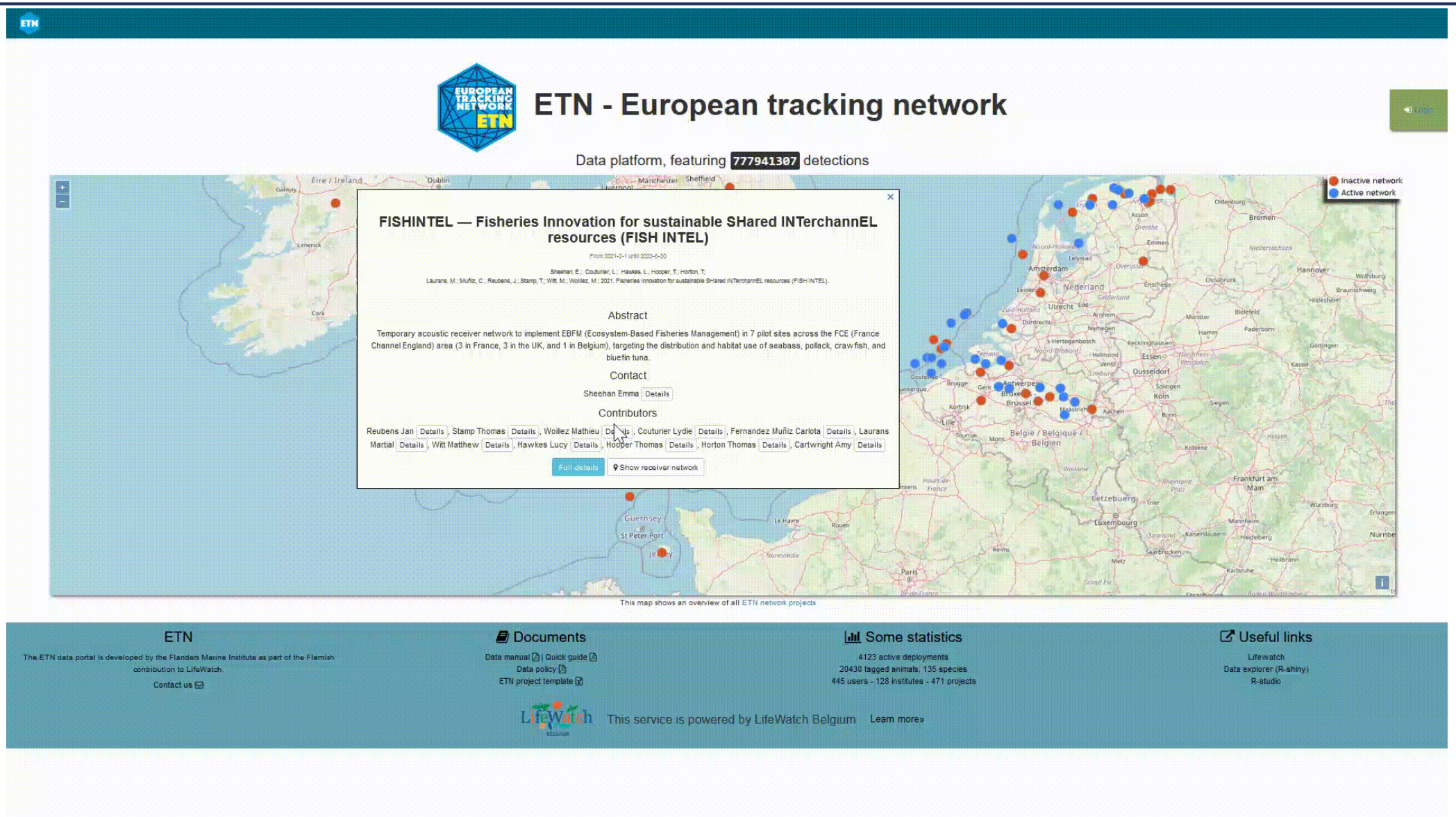
DETECTIONS

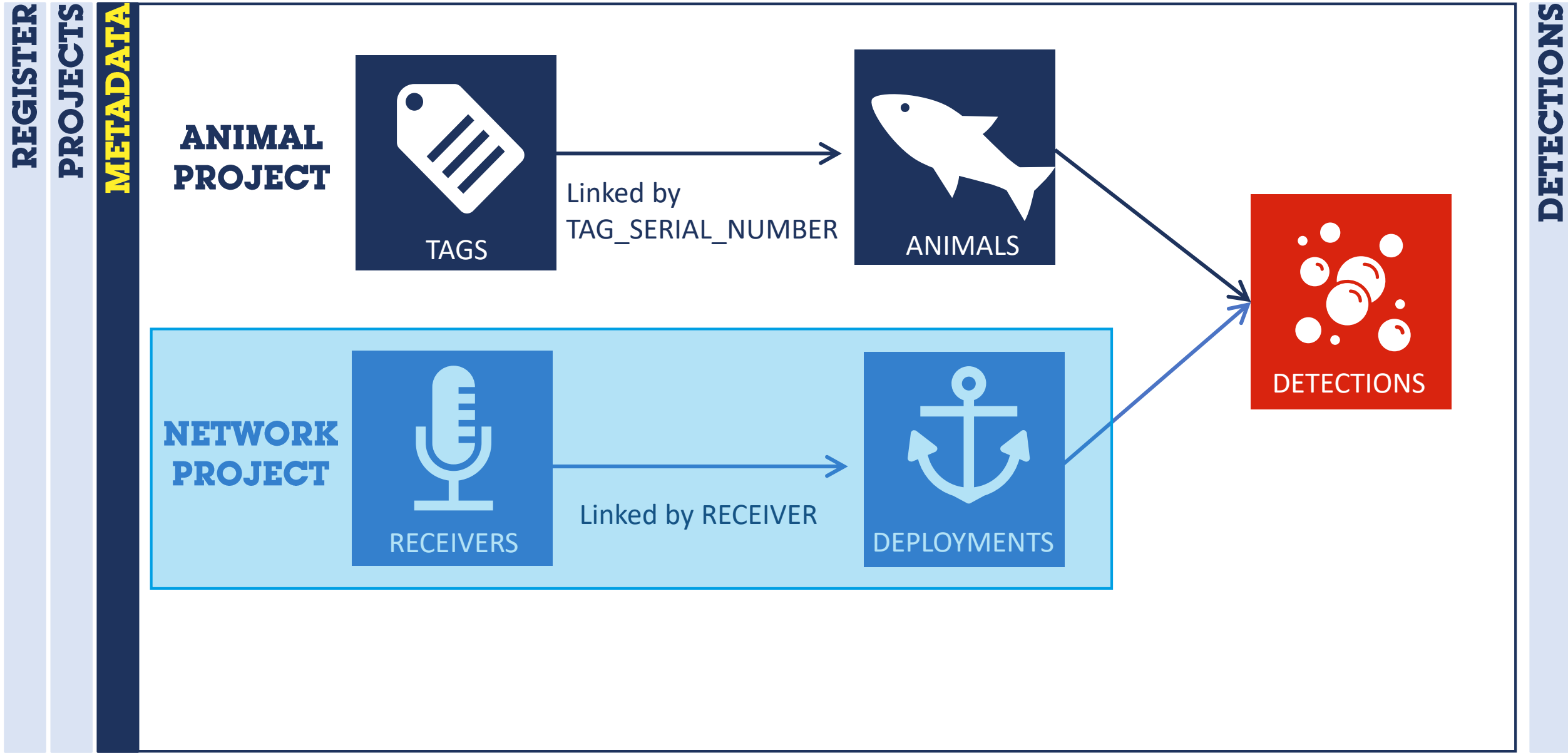
REGISTER

PROJECTS

METADATA

DETECTIONS




REGISTER
PROJECTS
METADATA
ANIMAL PROJECT
TAGS
Linked by TAG_SERIAL_NUMBER
ANIMALS
NETWORK PROJECT
RECEIVERS
Linked by RECEIVER
DEPLOYMENTS
DETECTIONS
DETECTIONS

REGISTER

PROJECTS

METADATA

TAGS

RECEIVERS

DEPLOYMENTS

ANIMALS

Metadata import

Import tags, receivers, animals or deployments

This page allows you to import metadata. ETN supports the import of 4 metadata objects: tags, receivers, animals and deployments. To facilitate the import process, we require that **import files follow some conventions** (filetype, file header, content). These conventions are described further in detail below, for each of the supported metadata types.

General conventions

- fieldnames must match 100%; take the sample file as reference
- only accepting `comma-separated` files
- `datetime` fields should follow the ISO-8601 format (e.g. `2017-01-01T12:07:23Z`)
- Please use this sample files for the data import.

Choose which metadata you want to import

- **Import tags**
  - Open TAG file description
  - Sample CSV file
- **Import receivers**
  - Open RECEIVER file description
  - Sample CSV file
- **Import animals**
  - Open ANIMAL file description
  - Sample CSV file
- **Import deployments**
  - Open DEPLOYMENT file description
  - Sample CSV file

File: Browse... No file selected.

Start import

Data Files

Upload detection data

Import metadata

ort metadata 2.

DETECTIONS

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  - Sample CSV file
- **Import deployments**
  - Open DEPLOYMENT file description
  - Sample CSV file

File: Browse... No file selected.

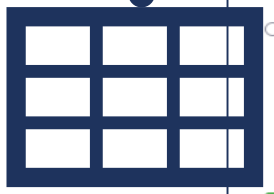
Start import

Data | Files

Upload detection data

Import metadata

Fieldname	Required	Type	Description
RECEIVER_ID_SERIAL_NUMBER	☑	string	Serial number assigned by receiver manufacturer to uniquely identify receiver. as in: 106252
RECEIVER_ID_MODEL	☑	string	Receiver model number as provided by the manufacturer. as in: VR2W
MANUFACTURER	☑	string	Name of receiver manufacturer. Predefined options: "VEMCO", "CHELONIA" or "THELMA BIOTEL". as in: Vemco
BATTERY_ESTIMATED_LIFE	☑	string	Expected duration for which the battery will provide adequate power for proper functioning of the receiver. units: days; format: integer; as in: 365
STATUS	☑	string	Current status of receiver. Predefined options: "Available" when uploading the receivers; will automatically be set to "Active" when deployments for the receiver get uploaded; need to be manually set when: "Broken", "Lost" or "Returned to manufacturer". as in: "Available"
FINANCING_PROJECT	☐	string	Receiver financing project. as in: project
RECEIVER_OWNER_ORGANISATION	☑	string	Group owner of the tag. Use the exact group name to which the tag belongs. as in: VLIZ
AR_MODEL_NUMBER	☐	string	Model number of the acoustic release as provided by the manufacturer. as in: 867
AR_RELEASE_CODE	☐	string	Code used to release the release; differs among release models. format: free text; as in: A; as in: 12345



REGISTER

PROJECTS

METADATA

TAGS

RECEIVERS

DEPLOYMENTS

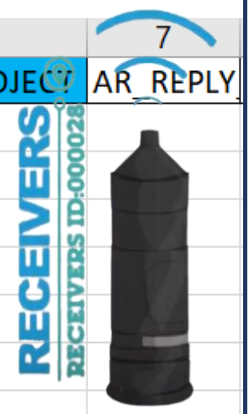
ANIMALS

DETECTIONS

THELMA BIOTEL			Delivery Note Acoustic Receivers			Contact: Erik Høy mail@thelmabiotel.no +47 920 31 433	
Researcher:	Jan Reubens		Order:	q1622		Date:	10.12.2021

Serial number	Receiver Type	Frequency	Firmware	Completion date	Supported protocols	Comment, special adaptions etc.
2060	TBR 800	69	v1.0.2	09.12.2021	OPs,OPi,S64K,R01M,S256,R64K	Frequency range 63->77kHz
2061	TBR 800	69	v1.0.2	09.12.2021	OPs,OPi,S64K,R01M,S256,R64K	Frequency range 63->77kHz
2063	TBR 800	69	v1.0.2	09.12.2021	OPs,OPi,S64K,R01M,S256,R64K	Frequency range 63->77kHz
2066	TBR 800	69	v1.0.2	09.12.2021	OPs,OPi,S64K,R01M,S256,R64K	Frequency range 63->77kHz
2067	TBR 800	69	v1.0.2	09.12.2021	OPs,OPi,S64K,R01M,S256,R64K	Frequency range 63->77kHz
2068	TBR 800	69	v1.0.2	09.12.2021	OPs,OPi,S64K,R01M,S256,R64K	Frequency range 63->77kHz
2070	TBR 800	69	v1.0.2	09.12.2021	OPs,OPi,S64K,R01M,S256,R64K	Frequency range 63->77kHz
2071	TBR 800	69	v1.0.2	09.12.2021	OPs,OPi,S64K,R01M,S256,R64K	Frequency range 63->77kHz
2072	TBR 800	69	v1.0.2	09.12.2021	OPs,OPi,S64K,R01M,S256,R64K	Frequency range 63->77kHz
2073	TBR 800	69	v1.0.2	09.12.2021	OPs,OPi,S64K,R01M,S256,R64K	Frequency range 63->77kHz
2074	TBR 800	69	v1.0.2	09.12.2021	OPs,OPi,S64K,R01M,S256,R64K	Frequency range 63->77kHz
2075	TBR 800	69	v1.0.2	09.12.2021	OPs,OPi,S64K,R01M,S256,R64K	Frequency range 63->77kHz

	2		4	5	6	7
RECEIVER_ID_SERIAL_NUMBER	RECEIVER_ID_MODEL	MANUFACTURER	BATTERY_ESTIMATED_LIFE	STATUS	FINANCING_PROJECT	AR_REPLY
2060	TBR800	THELMA BIOTEL	242	Available	FISHINTEL	
2061	TBR800	THELMA BIOTEL	242	Available	FISHINTEL	
2063	TBR800	THELMA BIOTEL	242	Available	FISHINTEL	
2066	TBR800	THELMA BIOTEL	242	Available	FISHINTEL	
2067	TBR800	THELMA BIOTEL	242	Available	FISHINTEL	
2068	TBR800	THELMA BIOTEL	242	Available	FISHINTEL	
2070	TBR800	THELMA BIOTEL	242	Available	FISHINTEL	



REGISTER

PROJECTS

METADATA

TAGS

RECEIVERS

DEPLOYMENTS

ANIMALS

DETECTIONS

Excersice 1. Let's upload your receivers

1 **UPLOAD RECEIVERS**

Upload your filled tag csv. Make sure to **include all required fields**. Special attention to:

- **RECEIVER_STATUS** → set to available first
- **RECEIVER_NAME** → autogenerated, MODEL+SERIAL_NUMBER
- **BATTERY_ESTIMATED_LIFE** → the system will use this value to automatically calculate the BATTERY_ESTIMATED_END_DATE

only **after** uploading receiver metadata, the deployment metadata can be uploaded.

REGISTER

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Metadata import

Import tags, receivers, animals or deployments

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General conventions

- fieldnames must match 100%; take the sample file as reference
- only accepting `comma-separated` files
- `datetime` fields should follow the ISO-8601 format (e.g.
- Please use this sample files for the data import.

Choose which metadata you want to import

- **Import tags**
  - Open TAG file description
  - Sample CSV file
- **Import receivers**
  - Open RECEIVER file description
  - Sample CSV file
- **Import animals**
  - Open ANIMAL file description
  - Sample CSV file
- **Import deployments**
  - Open DEPLOYMENT file description
  - Sample CSV file

File: Browse... No file selected.

Start import

Data | Files

Upload detection data

Import metadata

Fieldname	Required	Type	Description
RCV_PROJECT	☑	`string`	Select a network project; predefined options; new project names can only be added by administrators `as in: BPNS`
STATION_NAME	☑	`string`	Name of the station where the deployment of the receiver takes place. Related to a specific latitude and longitude. `format: free text; as in: OH6`
STATION_DESCRIPTION	☐	`string`	Name of receiver location. The location name serves as an additional descriptive name of the receiver station. It can refer to a specific nearby point of land, town, island, or body of water that identifies this receiver location. `as in: upstream weir`
DEPLOY_DATE_TIME	☑	`datetime`	Date and time that the equipment was deployed, in 24-hour UTC. Corresponds to the time of the captured waypoint. Datetime fields should follow the ISO-8601 format (e.g. 2017-01-01T12:07:23Z) `format: yyyy-mm-ddThh:mm:ssZ; as in: 2017-06-27T12:00:00Z`
DEPLOY_LATITUDE	☑	`float`	Latitude of the actual deployment location, in decimal degrees. Note: in the southern hemisphere all latitudes must be negative. `format: dd.ddddd; as in: 51.36324`
DEPLOY_LONGITUDE	☑	`float`	Longitude of the actual deployment location, in decimal degrees. Note: in the western hemisphere all longitudes must be negative. `format: ddd.ddddd; as in: 2.59020`

REGISTER

PROJECTS

METADATA

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ANIMALS

DETECTIONS

Excersice 2. Let's upload your deployments

1 UPLOAD RECEIVERS

Upload your filled tag csv.
Make sure to **include all required fields**. Special attention to:

- RECEIVER_STATUS
- RECEIVER_NAME
- BATTERY_ESTIMATED_LIFE

Will automatically update the **BATTERY_ESTIMATED_LIFE** of the receiver

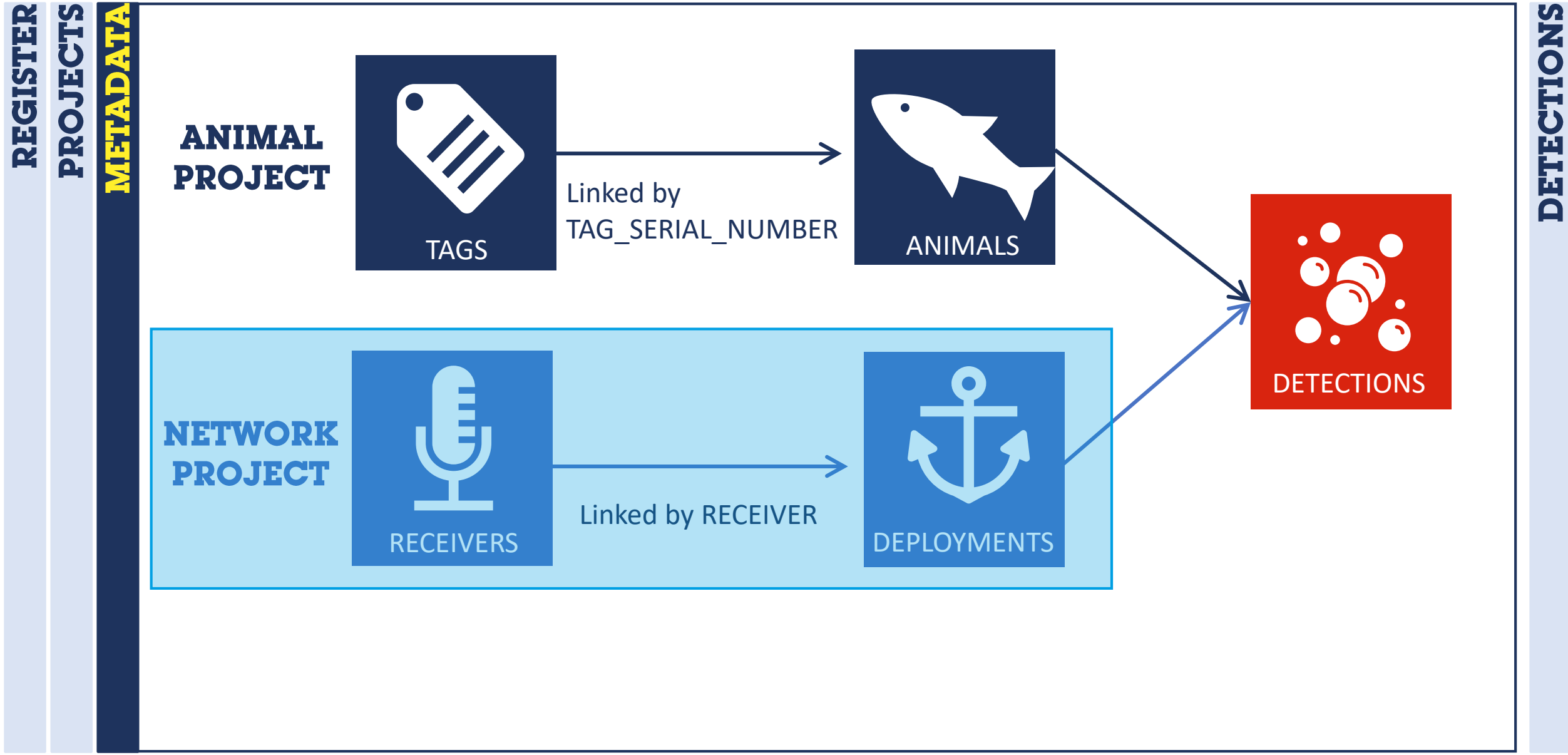
2 UPLOAD DEPLOYMENTS

An individual mooring of a receiver

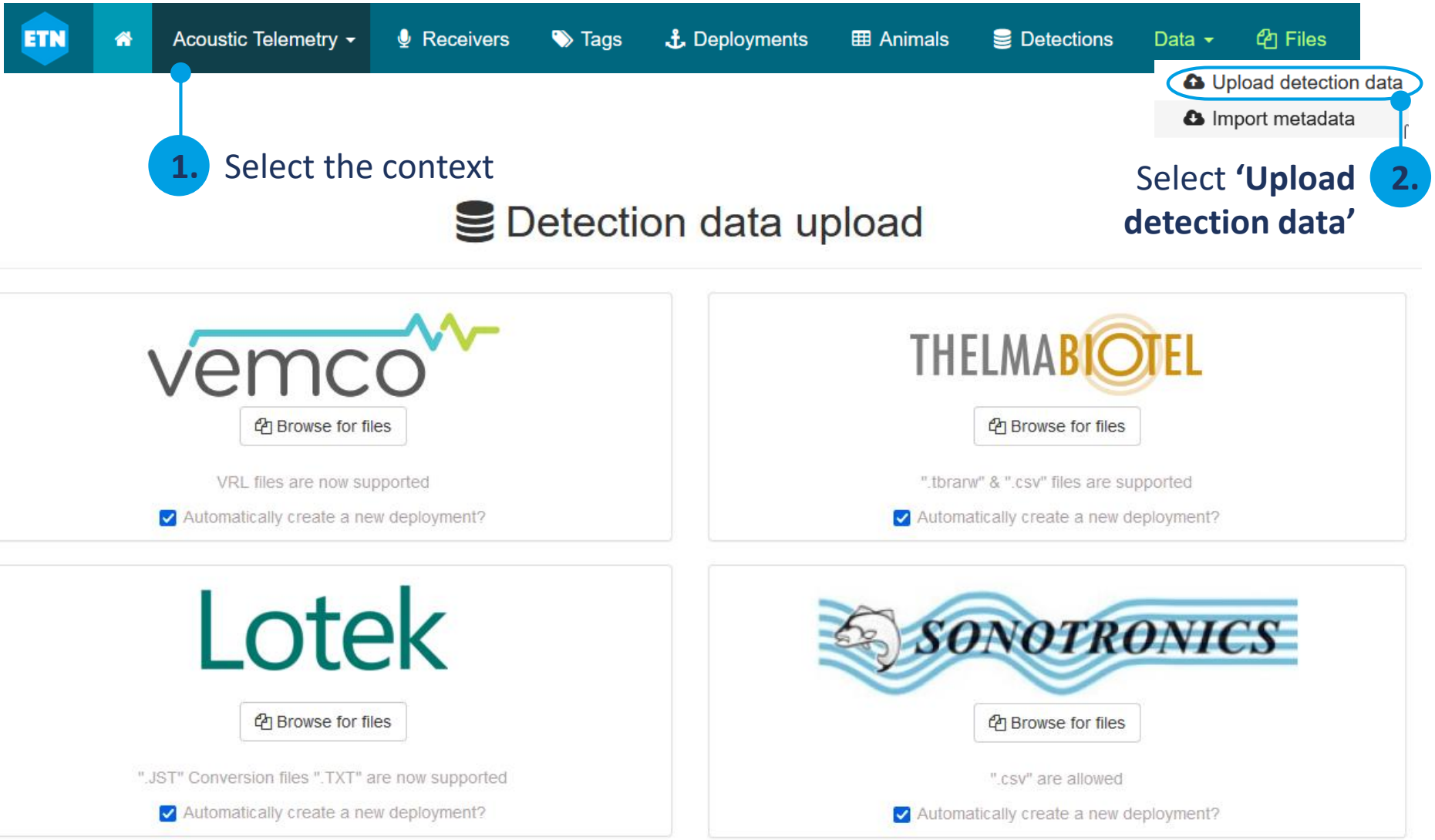
- RECOVER_DATE_TIME
- RECEIVER_NAME
- BATTERY_INSTALLATION_DATE
- MODEL + '-' + SERIAL_NUMBER

the receiver's **detection file**

only **after** uploading receiver metadata, the deployment metadata can be uploaded.


REGISTER
PROJECTS
METADATA
ANIMAL PROJECT
TAGS
Linked by TAG_SERIAL_NUMBER
ANIMALS
NETWORK PROJECT
RECEIVERS
Linked by RECEIVER
DEPLOYMENTS
DETECTIONS
DETECTIONS

REGISTER
CREATE A **PROJECT**
UPLOAD **METADATA**
UPLOAD **DETECTIONS**

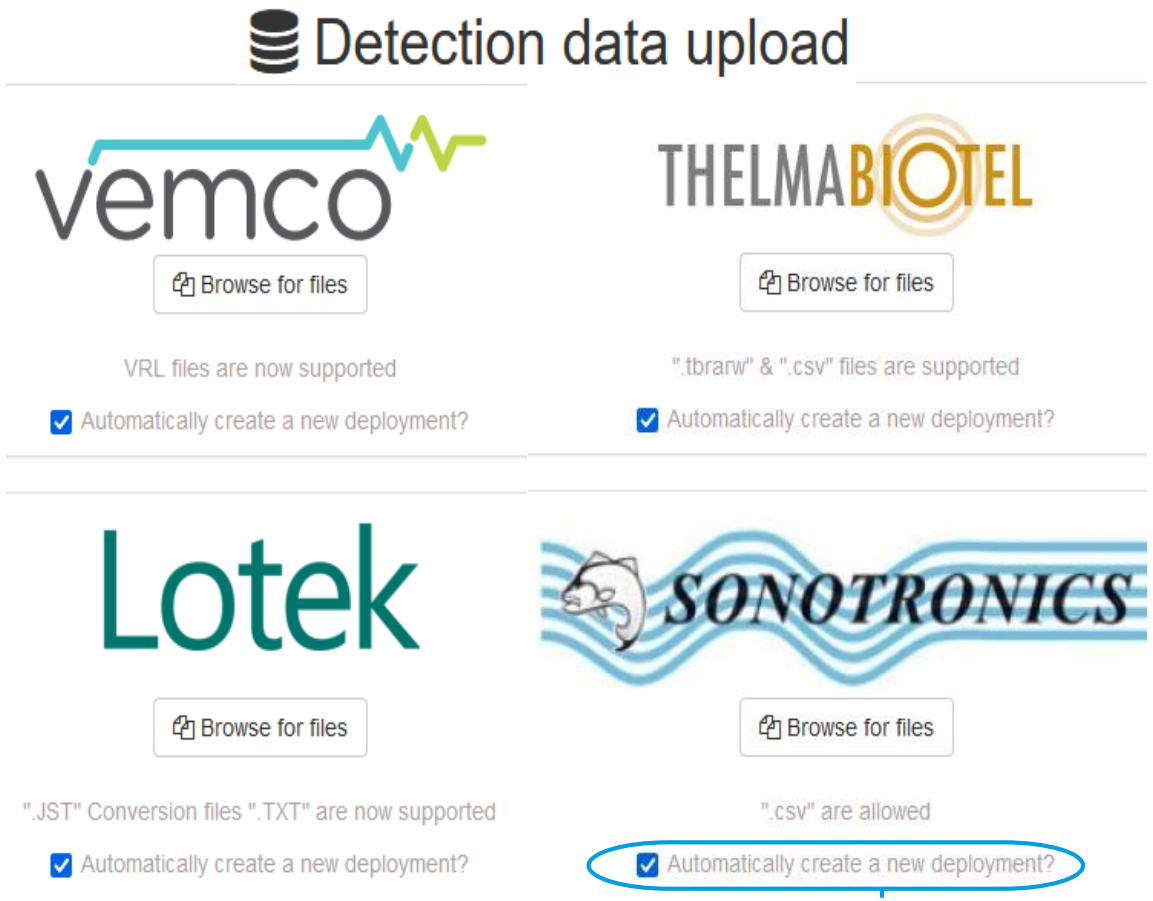


REGISTER

CREATE A **PROJECT**

UPLOAD **METADATA**

UPLOAD **DETECTIONS**



- Make sure all metadata (**Tags**, **Receivers, Animals** and **Deployments**) for these **detections** are in the system
- All **deployments** for detections need to be open (**without RECOVERY_DATE**). If the deployment is not open, the system will not enter the detections
- After the import, a **RECOVERY_DATE** will be automatically assign to the receivers. This can be edited later
- You can select whether a new deployment for that receiver should be created or not

REGISTER

CREATE A **PROJECT**

UPLOAD **METADATA**

UPLOAD **DETECTIONS**

My processing queue (automatically refreshes every 30 seconds, or click here)

This overview lists all file upload jobs created for you. Processing happens automatically, shortly after uploading the file.

File	Manufacturer	Deployment created	(UTC)	Status	Feedback
VR2W_136734_20210201_1.vrl	VEMCO	☑	2022-03-18 13:06	Success	Show logs
VR2W_136736_20210201_1.vrl	VEMCO	☑	2022-03-18 13:06	Success	Show logs
VR2W_136733_20210201_1.vrl	VEMCO	☑	2022-03-18 13:05	Error	Show logs
VR2W_136735_20210201_1.vrl	VEMCO	☑	2022-03-18 13:05	Success	Show logs
VR2W_136736_20211116_1.vrl	VEMCO	☑	2022-03-18 13:04	Success	Show logs
VR2W_136734_20210414_1.vrl	VEMCO	☑	2022-03-18 13:04	Success	Show logs
VR2W_136734_20211116_1.vrl	VEMCO	☑	2022-03-18 13:03	Success	Show logs
VR2W_136728_20210917_1.vrl	VEMCO	☑	2022-03-18 13:02	Success	Show logs
VR2W_136728_20210506_1.vrl	VEMCO	☑	2022-03-18 13:02	Success	Show logs

During/after upload: status update

Pending

SUCCESS 18-03-2022 13:40 Successfully uploaded 19744 detection records from `VR2W_136734_20210201_1.vrl`

INFO 18-03-2022 13:41 ⚠ QC issue(s) found: deployment date deployment *[receiver: VR2W-136734]* falls after some uploaded detections

ERROR 18-03-2022 13:36 VR2W_136733_20210201_1.vrl: Possible duplicate receiver (same model and serial number) found for: VR2W-136733

COMMON METADATA UPLOAD ISSUES

How to avoid issues:

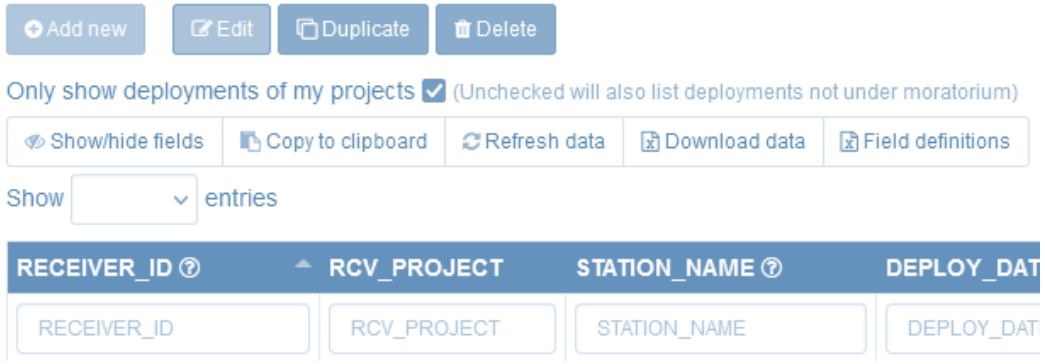
- Read the manual: https://lifewatch.be/ETN/assets/docs/ETN-DataManual.pdf
- Read the **field descriptions**. For each field it provides an explanation, the format and an example
- Watch the video tutorials in the ETN youtube channel

- **Date-time:** *ISO 8601 →"yyyy-mm-ddThh:mm:ssZ"*
- **Owner group not found:** *Check the user dashboard*
- **Project not found:** *Check the user dashboard*
- **Receiver/tag not found:** *Did you upload all? Any spelling mistakes?*
- **Doesn't recognize all headers:** *Use the .csv sample file*
- **Some information is missing:** *Fill out all compulsory fields*

In general…

- The character for **decimal numbers** is a dot
- The files for metadata upload must be **comma-separated** and coded in **UTF-8**.
- The system **does not accept special characters** such as accents, exclamation marks, etc.

EDITING metadata



Linked by
TAG_SERIAL_NUMBER

COMMON **METADATA UPLOAD** ISSUES

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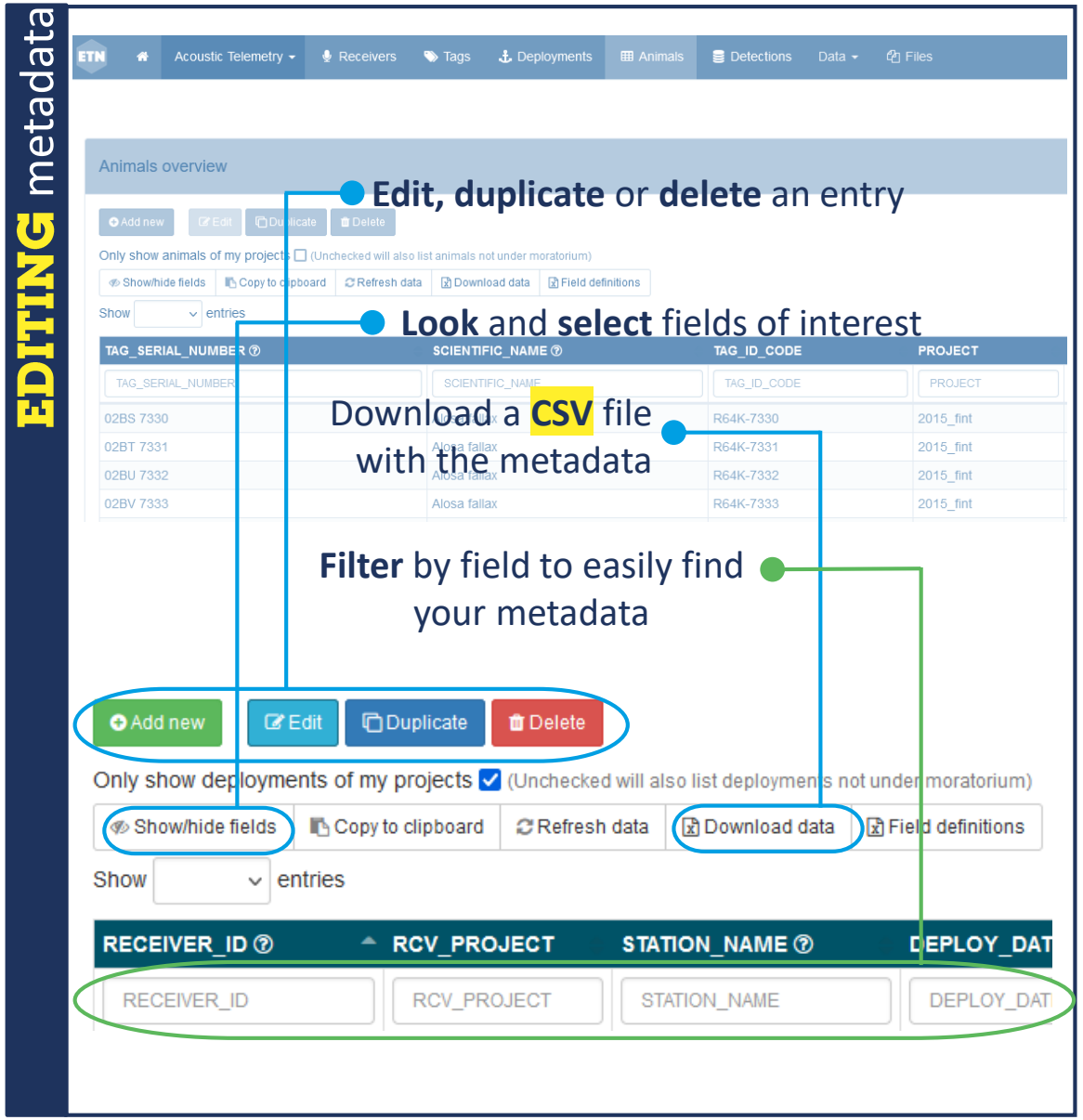


Lifewatch data explorer

Data source | Map | Data table | Time plots | Plots

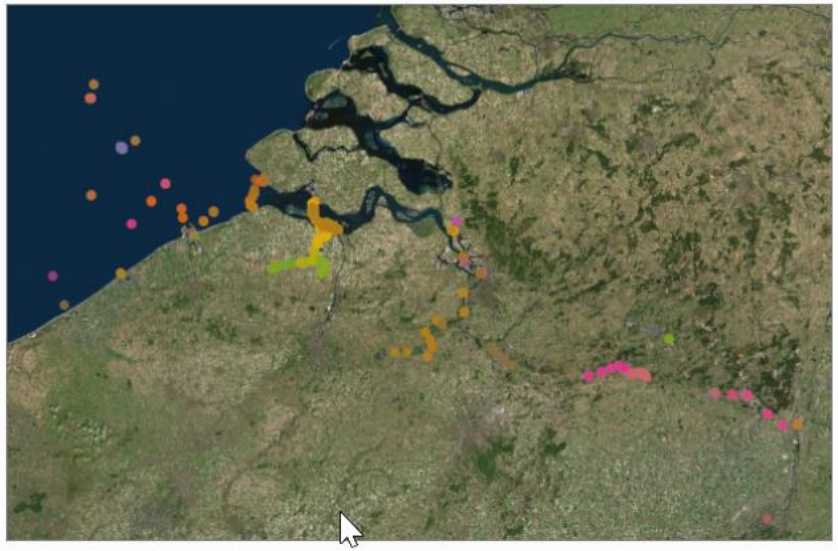
Data: 87048 rows x 11 columns

Reactivity restricted because of data size

Exploring fish telemetry data

Aquatic animal tracking data from the European Tracking Network.

- Partners: ETN members
- Period: since January 2003
- Geographical coverage: Europe
- Taxonomic coverage: Pisces
- Moratorium: Some project data is under moratorium. Login or register to get full access
- Data quality: Research-grade



Query options

Data source: Time bins

Network: All

Project: All

Sample period: 1 week

Timeframe: 2010-01-01 - 2022-03-20

Reload

https://rshiny.lifewatch.be/etn-data/

How to interpret this dataset

Query options

- **Data Source**: One of: **Time bins**: Number of detections per tag and per station based on the selected sample period; **Residencies**: groups detections by period spent at each receiver and sampling frequency; or **Active network**: list of active deployments, in which case time = start of deployment.
- **Network**: The network of receiver or antenna deployments.
- **Project**: Animal project linked to the tag deployments.
- **Sample period**: Counts aggregated. One of 1 week, 1 day, 60 min, 10 min or 1 min.
- **Timeframe**: Starting and stopping date for the query.

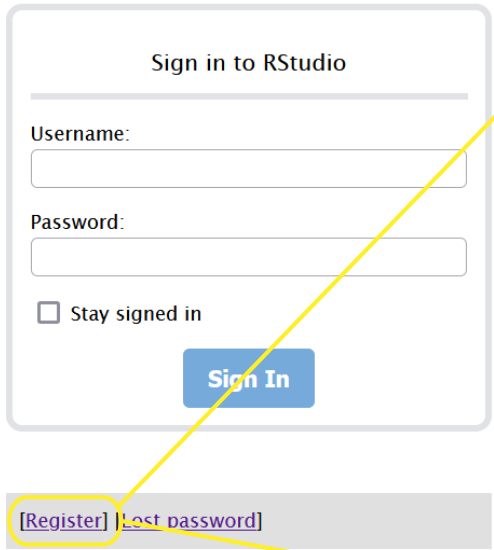
Available columns

- **Counts**: Total GPS fixes or detections.
- **Scientific_name**: The latin name of the species.
- **Project**: Project in charge of receiver deployments.
- **Network**: The network of receiver or antenna deployments.
- **Time**: Time in UTC, beginning of sample timeperiod.
- **Longitude**: Center longitude in decimal degrees, WGS84
- **Latitude**: Center latitude in decimal degrees, WGS84
- **Station**: Name or code of sampling station or receiver code.
- **Receiver**: Receiver name, composed of 'Model number'-'Serial number'.
- **Code**: Code of device on / in individual.
- **Moratorium**: Some data fields are masked, pending official data publication. eg Species name.
- **Duration**: Total time since receiver deployment (in hours).
- **Remaining**: Battery life remaining in the receiver (in hours).
- **Expiry_date**: As in 'BATTERY_ESTIMATED_END_DATE' is the estimated date at which receiver will stop recording. This date is calculated automatically from (Deployments/Battery install date) and (Receivers/Expected battery life).
- **Location_name**: Name of receiver location. Please refer to a specific nearby point of land, town, island, or body of water that uniquely identifies this receiver location.
- **Residency**: Time in hours that an animal was present at a station.
- **Absence**: Time in hours that an animal was not detected at a station (calculated between end of previous residence and start of current residence period).
- **Species**: Scientific name of the animal, as in Gadus morhua.

This package provides functionality to access data from the **European Tracking Network (ETN)** database hosted by the Flanders Marine Institute (VLIZ) as part of the Flemish contribution to **LifeWatch**.

Register to RStudio server

The ETN infrastructure currently requires the package to be run within the LifeWatch.be **RStudio server**, which is password protected.



RShiny/RStudio registration

Please register by filling out the form below. Once you have submitted your registration, you will receive a confirmation email.

my details are listed in IMIS

First name*
Last name*
Password*
Confirm password*
E-mail*
Request access to*
- Access to European ocean Tracking Network (ETN) data (ETN_data)
- Able to use the IMIS fairchecker (Rshiny app) (fairchecker)
- Labeling Images (MOC) (labeling_app)
- Full access to Lifewatch UvA-BiTS birds data (Lifewatch_birds)
- Download raw data from Flemish Banks Monitoring Network, via Rshiny... (mvb)
- Access Rstudio server (RStudio)

Purpose

* I agree that my personal data is processed in accordance with the General Data Protection Regulation (GDPR)

Register

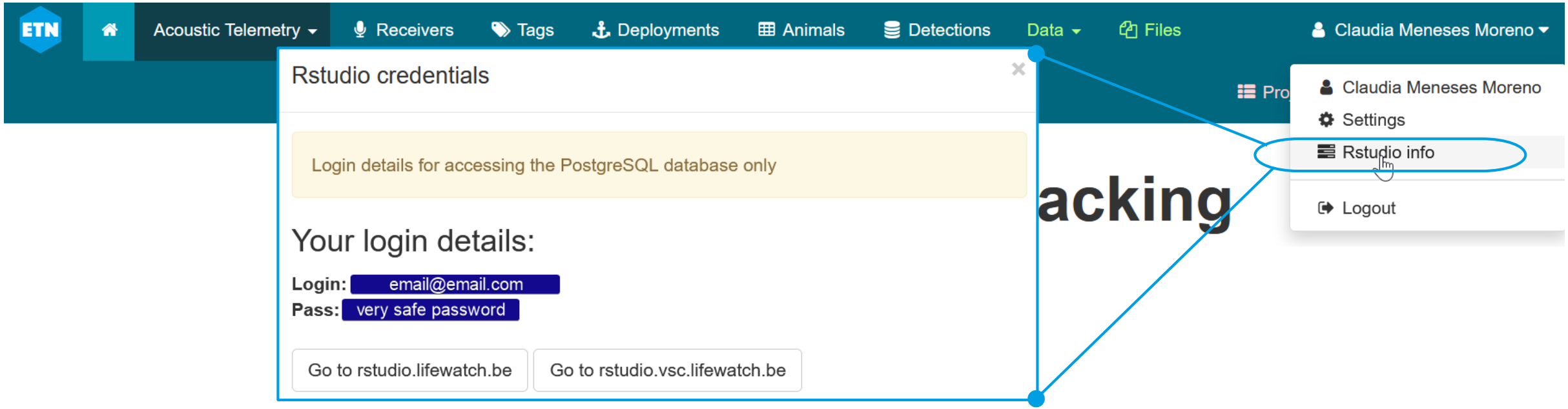
This package provides functionality to access data from the **European Tracking Network (ETN)** database hosted by the Flanders Marine Institute (VLIZ) as part of the Flemish contribution to **LifeWatch**.

Register to RStudio server

The ETN infrastructure currently requires the package to be run within the LifeWatch.be **RStudio server**, which is password protected.

Find your credentials

You can find it in the ETN portal -> User info -> **Rstudio info**

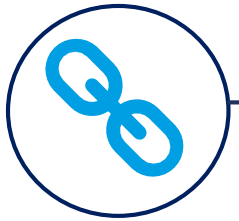


This package provides functionality to access data from the **European Tracking Network (ETN)** database hosted by the Flanders Marine Institute (VLIZ) as part of the Flemish contribution to **LifeWatch**.

- **Register to RStudio server** — The ETN infrastructure currently requires the package to be run within the LifeWatch.be **RStudio server**, which is password protected.
- **Find your credentials** — You can find it in the ETN portal -> User info -> **Rstudio info**
- **Check the ETN tutorial**

DEMO. Generate yearly tagging effort report

https://claumemo.github.io/ETN_tutorial



- http://www.lifewatch.be/etn/
- http://www.europeantrackingnetwork.org/
- http://inbo.github.io/etn/index/html
- http://inbo.github.io/etn/reference/indetx.html
- https://claumemo.github.io/ETN_tutorial

claudia.meneses@vliz.be
etn@lifewatch.be

cost EUROPEAN COOPERATION IN SCIENCE & TECHNOLOGY

VLIZ Vlaams Instituut voor de Zee vzw Flanders Marine Institute

EUROPEAN TRACKING NETWORK ETN

LifeWatch BELGIUM

FISH INTEL

Interreg France (Channel Manche) England European Regional Development Fund

EUROPEAN UNION

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DETECTIONS

Metadata import

Import tags, receivers, animals or deployments

This page allows you to import metadata. ETN supports the import of 4 metadata objects: tags, receivers, animals and deployments. To facilitate the import process, we require that **import files follow some conventions** (filetype, file header, content). These conventions are described further in detail below, for each of the supported metadata types.

General conventions

- fieldnames must match 100%; take the sample file as reference
- only accepting `comma-separated` files
- `datetime` fields should follow the ISO-8601 format (e.g. `2017-01-01T12:07:23Z`)
- Please use this sample files for the data import.

Choose which metadata you want to import

- **Import tags**
  - Open TAG file description
  - Sample CSV file
- **Import receivers**
  - Open RECEIVER file description
  - Sample CSV file
- **Import animals**
  - Open ANIMAL file description
  - Sample CSV file
- **Import deployments**
  - Open DEPLOYMENT file description
  - Sample CSV file

File: Browse... No file selected.

Start import

Data Files

Upload detection data

Import metadata

ort metadata 2.

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DETECTIONS

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Choose which metadata you want to import

- Import tags
  - Open TAG file description
  - Sample CSV file
- Import receivers
  - Open RECEIVER file description
  - Sample CSV file
- Import animals

File: Browse... No file selected.

Start import

Data Files

Fieldname	Required	Type	Description
OWNER_ORGANIZATION	☑	`string`	Group owner of the tag. Use the exact group name to which the tag belongs. `as in 'VLIZ'`
PI	☐	`string`	First and last name of the Principal Investigator for the project. `as in: Jan Reubens`
TAG_TYPE	☑	`string`	Type of tag attached to animal. Fixed option: sensor-tag, id-tag, combined-tag `as in: sensor-tag`
TAG_SUB_TYPE	☑	`string`	Type of acoustic tag. Predefined options: "animal", "built-in tag", "sentinel tag" or "range tag". `as in: animal`
MANUFACTURER	☑	`string`	Name of tag manufacturer. Predefined options are available. `as in: VEMCO`
SERIAL_NUMBER	☑	`string`	Serial number assigned by tag manufacturer to uniquely identify tag. `as in: 1036912`
MODEL	☑	`string`	Tag model number as provided by the manufacturer. `as in: V9-6L`
TAG_ESTIMATED_LIFETIME	☑	`integer`	Estimated duration of time during which the tag will be transmitting. `units: days; as in: 80`
TAG_STATUS	☑	`string`	Current status of the tag. Three options: "Available" when uploading the tags. Will automatically be set to "Active" when animals get uploaded. Will automatically be set to "Ended" when the battery estimated lifetime is reached `as in: "Available"`

D11

	A	B	C	D	E	F
1	OWNER_ORGANIZATION	PI	TAG_TYPE	TAG_SUB_TYPE	MANUFACTURER	SERIAL_NUMBER
2						

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Example: THELMA

MANUFACTURER

THELMABIOTEL

Delivery Note
Acoustic Transmitters

Contact: Erik Høy
mail@thelmabiotel.no
+47 920 31 433

Researcher:		Order:	834	Date:	28.02.2022
Tags specs:	42 pcs of LP9L				
Diameter	9 mm				
Length	24 mm				
Weight air	4 g				
Weight water	2,5 g				
Power output	142 dB				

TAG_ID_CODE

TAG_ID_PROTOCOL

Serial number	Transmitter Type	ID Number	Frequency	Duty [sec]	Protocol	Auto Off After Start	Life time	Comment/Range/etc
22084646	ID-LP9L	4646	69	30-60	R64K	800	Est. 20,1 months	NA
22084647	ID-LP9L	4647	69	30-60	R64K	800	Est. 20,1 months	NA
22084648	ID-LP9L	4648	69	30-60	R64K	800	Est. 20,1 months	NA
22084649	ID-LP9L	4649	69	30-60	R64K	800	Est. 20,1 months	NA
22084650	ID-LP9L	4650	69	30-60	R64K	800	Est. 20,1 months	NA
22084651	ID-LP9L	4651	69	30-60	R64K	800	Est. 20,1 months	NA
22084652	ID-LP9L	4652	69	30-60	R64K	800	Est. 20,1 months	NA
22084653	ID-LP9L	4653	69	30-60	R64K	800	Est. 20,1 months	NA
22084654	ID-LP9L	4654	69	30-60	R64K	800	Est. 20,1 months	NA
22084655	ID-LP9L	4655	69	30-60	R64K	800	Est. 20,1 months	NA

SERIAL_NUMBER

MODEL

FREQUENCY

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Serial number	Transmitter Type	ID Number	Frequency	Duty [sec]	Protocol	Auto Off After Start	Life time	Comment/Range/etc
22084646	ID-LP9L	4646	69	30-60	R64K	800	Est. 20,1 months	NA
22084647	ID-LP9L	4647	69	30-60	R64K	800	Est. 20,1 months	NA
22084648	ID-LP9L	4648	69	30-60	R64K	800	Est. 20,1 months	NA
22084649	ID-LP9L	4649	69	30-60	R64K	800	Est. 20,1 months	NA
22084650	ID-LP9L	4650	69	30-60	R64K	800	Est. 20,1 months	NA
22084651	ID-LP9L	4651	69	30-60	R64K	800	Est. 20,1 months	NA
22084652	ID-LP9L	4652	69	30-60	R64K	800	Est. 20,1 months	NA
22084653	ID-LP9L	4653	69	30-60	R64K	800	Est. 20,1 months	NA
22084654	ID-LP9L	4654	69	30-60	R64K	800	Est. 20,1 months	NA
22084655	ID-LP9L	4655	69	30-60	R64K	800	Est. 20,1 months	NA

A	B	C	D	E	F	G	H	I	J	K	L	M	N
OWNER_ORGANIZATION	PI	TAG_TYPE	TAG_SUB_TYPE	MANUFACTURER	SERIAL_NUMBER	MODEL	TAG_ESTIMATED_LIFETIM	TAG_STATUS	TAG_	TAG	TAG_ID_P	TAG_ID_CODE	FREQUENCY
VLIZ	CLAUDIA	id-tag	animal	THELMA BIOTEL	22084646	ID-LP9L		available			R64K	4646	69
VLIZ	CLAUDIA	id-tag	animal	THELMA BIOTEL	22084647	ID-LP9L		available			R64K	4647	69
VLIZ	CLAUDIA	id-tag	animal	THELMA BIOTEL	22084648	ID-LP9L		available			R64K	4648	69
VLIZ	CLAUDIA	id-tag	animal	THELMA BIOTEL	22084649	ID-LP9L		available			R64K	4649	69
VLIZ	CLAUDIA	id-tag	animal	THELMA BIOTEL	22084650	ID-LP9L		available			R64K	4650	69
VLIZ	CLAUDIA	id-tag	animal	THELMA BIOTEL	22084651	ID-LP9L		available			R64K	4651	69

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MANUFACTURER

Example: VEMCO

Sales Order	Serial No.	# of ID's	Customer	Researcher	Tag Family	VUE Tag ID	Est tag life (days)	Step 1 Status	Step 1 Time (dy hr:min:sec)
32865	1399973	2	Bag End	Bilbo Baggins	V9AP-2x-BLU-1	A69-9007-3723	206	ON	206 00:00:00
32865	1399973	2	Bag End	Bilbo Baggins	V9AP-2x-BLU-1	A69-9007-3724	206	ON	206 00:00:00
32865	1399974	2	Bag End	Bilbo Baggins	V9AP-2x-BLU-1	A69-9007-3725	206	ON	206 00:00:00
32865	1399974	2	Bag End	Bilbo Baggins	V9AP-2x-BLU-1	A69-9007-3726	206	ON	206 00:00:00
32865	1399975	2	Bag End	Bilbo Baggins	V9AP-2x-BLU-1	A69-9007-3727	206	ON	206 00:00:00
32865	1399975	2	Bag End	Bilbo Baggins	V9AP-2x-BLU-1	A69-9007-3728	206	ON	206 00:00:00
32865	1399976	2	Bag End	Bilbo Baggins	V9AP-2x-BLU-1	A69-9007-3729	206	ON	206 00:00:00
32865	1399976	2	Bag End	Bilbo Baggins	V9AP-2x-BLU-1	A69-9007-3730	206	ON	206 00:00:00
32865	1399977	2	Bag End	Bilbo Baggins	V9AP-2x-BLU-1	A69-9007-3731	206	ON	206 00:00:00
32865	1399977	2	Bag End	Bilbo Baggins	V9AP-2x-BLU-1	A69-9007-3732	206	ON	206 00:00:00
32865	1399978	2	Bag End	Bilbo Baggins	V9AP-2x-BLU-1	A69-9007-3733	206	ON	206 00:00:00
32865	1399978	2	Bag End	Bilbo Baggins	V9AP-2x-BLU-1	A69-9007-3734	206	ON	206 00:00:00
32865	1399979	2	Bag End	Bilbo Baggins	V9AP-2x-BLU-1	A69-9007-3735	206	ON	206 00:00:00
32865	1399979	2	Bag End	Bilbo Baggins	V9AP-2x-BLU-1	A69-9007-3736	206	ON	206 00:00:00

SERIAL_NUMBER

MODEL

TAG_ID_PROTOCOL

TAG_ID_CODE

REGISTER

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TAGS

Sales Order	Serial No.	# of ID's	Customer	Researcher	Tag Family	VUE Tag ID	Est tag life (days)	Step 1 Status	Step 1 Time (dy hr:min:sec)
32865	1399973	2	Bag End	Bilbo Baggins	V9AP-2x-BLU-1	A69-9007-3723	206	ON	206 00:00:00
32865	1399973	2	Bag End	Bilbo Baggins	V9AP-2x-BLU-1	A69-9007-3724	206	ON	206 00:00:00
32865	1399974	2	Bag End	Bilbo Baggins	V9AP-2x-BLU-1	A69-9007-3725	206	ON	206 00:00:00
32865	1399974	2	Bag End	Bilbo Baggins	V9AP-2x-BLU-1	A69-9007-3726	206	ON	206 00:00:00
32865	1399975	2	Bag End	Bilbo Baggins	V9AP-2x-BLU-1	A69-9007-3727	206	ON	206 00:00:00
32865	1399975	2	Bag End	Bilbo Baggins	V9AP-2x-BLU-1	A69-9007-3728	206	ON	206 00:00:00
32865	1399976	2	Bag End	Bilbo Baggins	V9AP-2x-BLU-1	A69-9007-3729	206	ON	206 00:00:00
32865	1399976	2	Bag End	Bilbo Baggins	V9AP-2x-BLU-1	A69-9007-3730	206	ON	206 00:00:00
32865	1399977	2	Bag End	Bilbo Baggins	V9AP-2x-BLU-1	A69-9007-3731	206	ON	206 00:00:00

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MENTS

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OWNER_ORGANIZATION	PI	TAG_TYPE	TAG_SUB_TYPE	MANUFACTURER	SERIAL_NUMBER	MODEL	TAG_ESTIMATED_LIFETIME	TAG_STATUS	/AT\TE	TAG_ID_PROTOCOL	TAG_ID_CODE
Bag End	Bilbo Baggins	sensor-tag	animal	VEMCO	1399973	V9AP-2x-BLU-1	206	available		A69-9007	3723
Bag End	Bilbo Baggins	sensor-tag	animal	VEMCO	1399973	V9AP-2x-BLU-1	206	available		A69-9007	3724
Bag End	Bilbo Baggins	sensor-tag	animal	VEMCO	1399974	V9AP-2x-BLU-1	206	available		A69-9007	3725

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Metadata import

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- only accepting `comma-separated` files
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Choose which metadata you want to import

- Import tags
  - Open TAG file description
  - Sample CSV file
- Import receivers
  - Open RECEIVER file description
  - Sample CSV file
- Import animals
  - Open ANIMAL file description
  - Sample CSV file
- Import deployments
  - Open DEPLOYMENT file description
  - Sample CSV file

File: Browse... No file selected.

Start import

Data Files

Upload detection data

Import metadata

2.

ort metadata

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ANIMALS

DETECTIONS

EUROPEAN TRACKING NETWORK ETN

1 UPLOAD

Upload your filled tag csv. Make sure to **include all required fields**. Special attention to:

- **TAG_STATUS** → set to available first
- TAG_ESTIMATED_LIFETIME
- SERIAL_NUMBER

2 UPLOAD ANIMALS

TAG_SERIAL_NUMBER

only after uploading tag metadata, the animal metadata can be uploaded.

REGISTER

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DETECTIONS

EUROPEAN TRACKING NETWORK ETN

1 UPLOAD

Upload your filled tag csv. Make sure to **include all required fields**. Special attention to:

- **TAG_STATUS** – set to ~~available~~ ended
- **TAG_ESTIMATED_LIFETIME** → the system will use this value to automatically calculate the TAG_ESTIMATED_ENDATE
- SERIAL_NUMBER

Once the battery ends, the TAG_STATUS will be automatically set to ended

2 UPLOAD ANIMALS

TAG_SERIAL_NUMBER

only after uploading tag metadata, the animal metadata can be uploaded.

REGISTER

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METADATA

TAGS

RECEIVERS

DEPLOYMENTS

ANIMALS

DETECTIONS

EUROPEAN TRACKING NETWORK ETN

1 UPLOAD

Upload your filled tag csv. Make sure to **include all required fields**. Especial attention to:

- TAG_STATUS
- TAG_ESTIMATED_LIFETIME
- **SERIAL_NUMBER** → identifies a unique tag device

2 UPLOAD ANIMALS

TAG_SERIAL_NUMBER

only after uploading tag metadata, the animal metadata can be uploaded.

REGISTER

PROJECTS

METADATA

TAGS

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DETECTIONS

EUROPEAN TRACKING NETWORK ETN

1 UPLOAD

Upload your filled tag csv. Make sure to **include all required fields**. Especial attention to:

- **TAG_STATUS** – set to available
- **TAG_ESTIMATED_LIFETIME**
- **SERIAL_NUMBER**

2 UPLOAD ANIMALS

TAG_SERIAL_NUMBER

only **after** uploading tag metadata, the animal metadata can be uploaded.

REGISTER

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1 UPLOAD

Upload your filled tag csv. Make sure to **include all required fields**. Especial attention to:

- **TAG_STATUS** – set to ~~available~~ **active**
- **TAG_ESTIMATED_LIFETIME**
- **SERIAL_NUMBER**

after uploading an animal, the TAG_STATUS will automatically change to active

2 UPLOAD

An individual animal with a tag

TAG_SERIAL_NUMBER

only **after** uploading tag metadata, the animal metadata can be uploaded.

REGISTER

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1 UPLOAD

Upload your filled tag csv. Make sure to **include all required fields**. Especial attention to:

- **TAG_STATUS** – set to **active**
- **TAG_ESTIMATED_LIFETIME**
- **SERIAL_NUMBER**

needs to match exactly the tag's serial number in the tag's metadata

a tag gets linked to an animal by the field **SERIAL_NUMBER,** present in both metadata files

2 UPLOAD

An individual animal with a tag

TAG_SERIAL_NUMBER

only **after** uploading tag metadata, the animal metadata can be uploaded.