INTRODUCTION TO THE EU POLLINATOR HUB

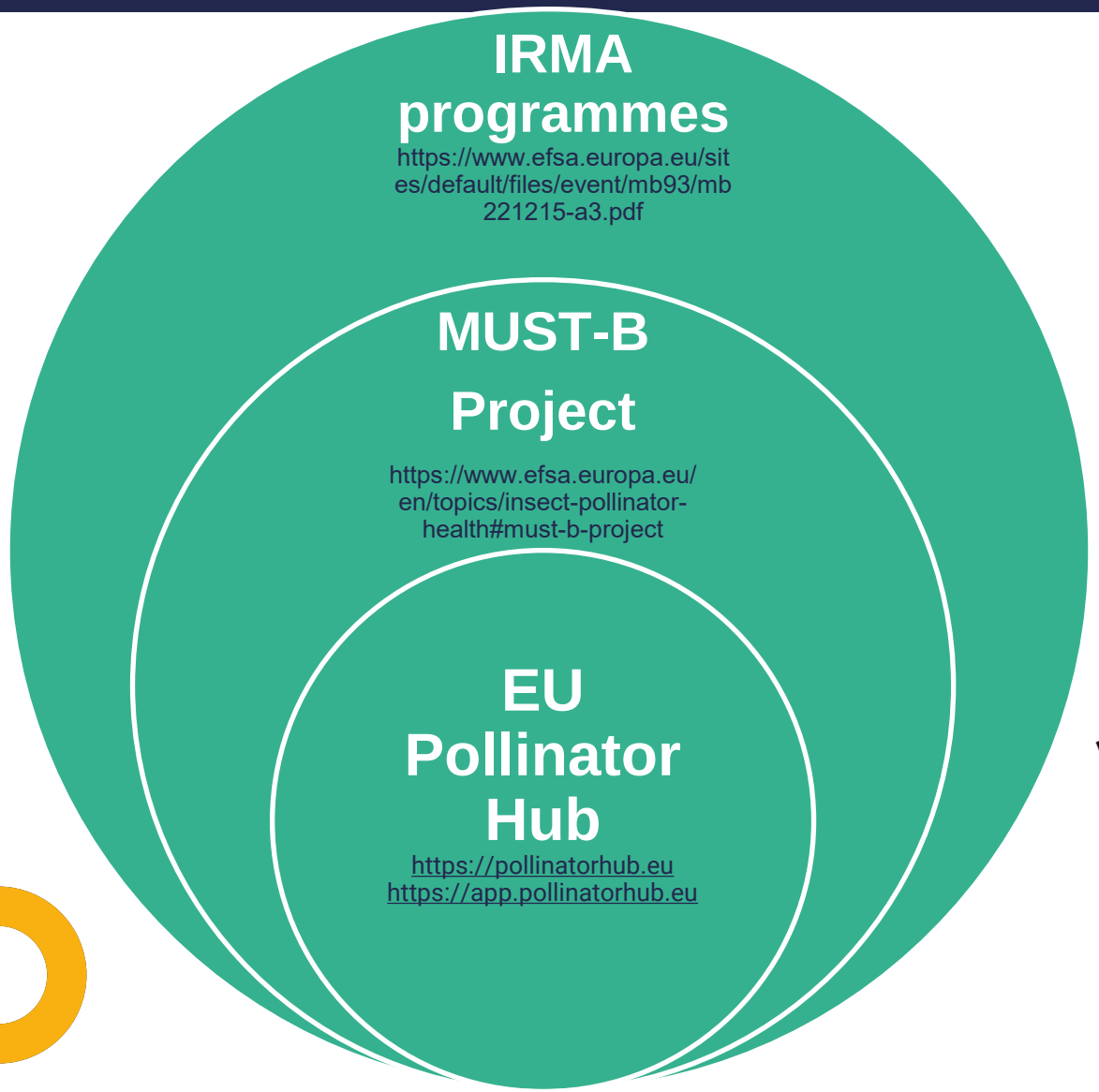
efsa
EUROPEAN FOOD SAFETY AUTHORITY

Acknowledgements

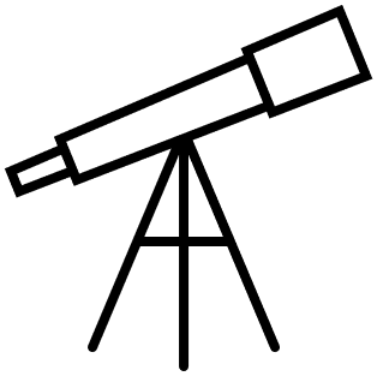
EFSA's contractor
developing the EU Pollinator Hub
(reference OC/EFSA/
SCER/2021/09)

BeeLife

EU POLLINATOR HUB IN EFSA CONTEXT



Ensure preparedness & up-to-date scientific approaches & methodologies for regulatory **Environmental Risk Assessment (ERA)** through improved data sharing



TRIGGER FOR EU POLLINATOR HUB

European Parliament's Week of bees and Pollination: Call for a **framework for action** to review & strengthen the collection & sharing of data on bee health in the EU

EU Bee Partnership (EUBP) was established to promote harmonised & standardised **data** collection & sharing on **bee & pollinator health**

EFSA facilitated EUBP's discussions & outsourced the development of **the EU Pollinator Hub** (= data sharing platform on bee & pollinator health)

EU POLLINATOR HUB IN TIME

2019
PROOF OF
CONCEPT

2021
PROTOTYPE
PLATFORM

2024
OPERATIONAL
PLATFORM

PLATFORM
BEYOND 2024

?

European Commission

BeeLife

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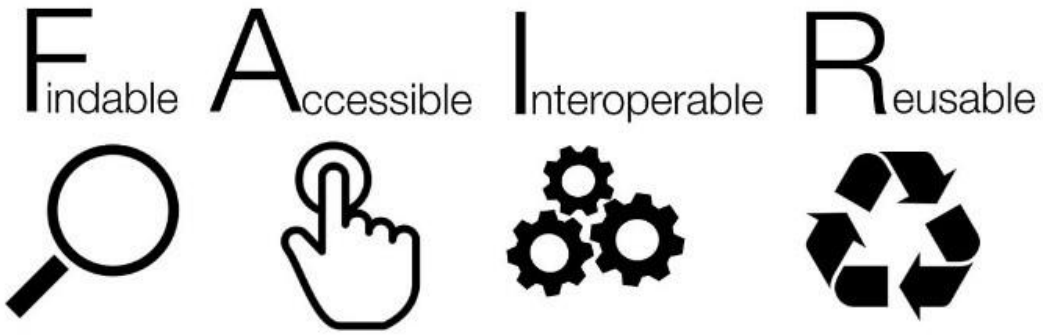
OPPORTUNITIES OFFERED BY THE HUB

Currently available

- **open access** to research data
- **data models & standards** with terminologies
- **data quality & interoperability**
- **good practices** with data providers
- **risk communication** to risk assessors/manager

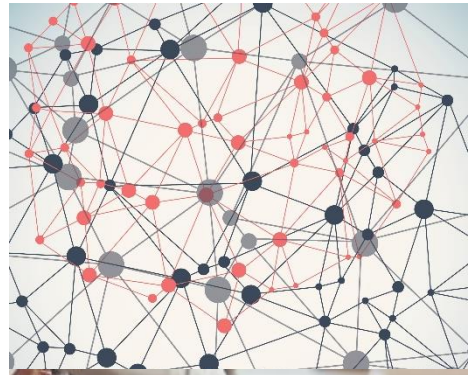


In the future

- **awareness & understanding** on pollinator data / trends / mitigation options
- **integrated & holistic assessments** (large aggregated datasets, epi studies)
- **research needs** by highlighting missing information & data gaps
- **reports/analysis** with a fine resolution visualisation on a user-friendly interface

CURRENT DATASETS IN THE HUB

- Exhaustive vs. comprehensive datasets
- Stakeholders from EU Bee Partnership shared their data as a proof of concept
- Preliminary focus on bees and more recently on insect pollinators
- Ongoing preparatory work for the integration of research data from EU projects (B-GOOD)



=> Future use and relevance for beekeeping sector?

EU POLLINATOR HUB

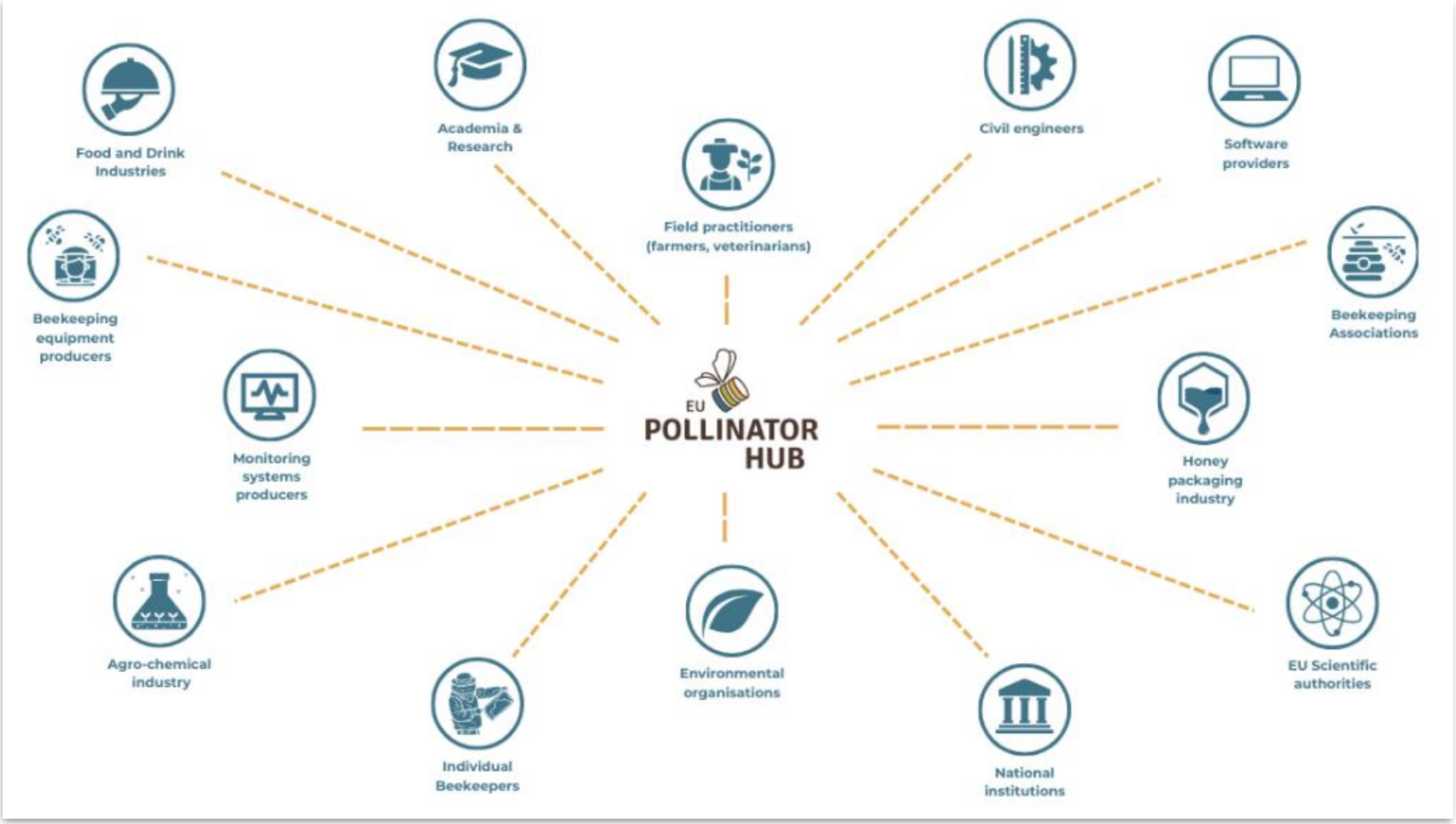
Tool that mimics honey bee biology - holistic, cross cutting data living together and communicating with each other

Presentation page:

https://pollinatorhub.eu

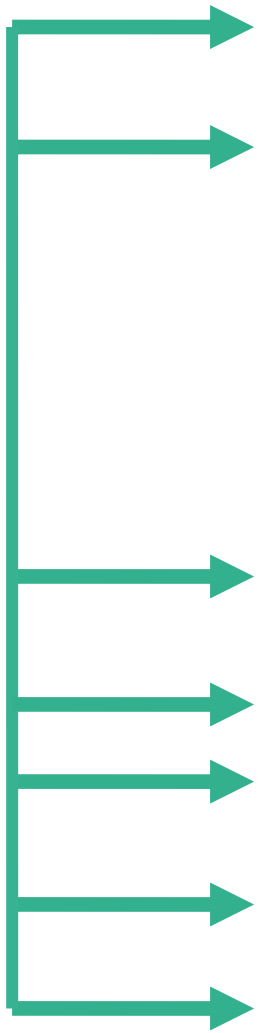
Platform:

https://app.pollinatorhub.eu



(EU) 2021/2115

Supported by EU Pollinator Hub



Article 55

Types of intervention in the apiculture sector and Union financial assistance

1. Member States shall choose in their CAP Strategic Plans for each chosen specific objective set out in Article 6(1) one or more of the following types of intervention in the apiculture sector:

(a) advisory services, technical assistance, training, information and exchange of best practices, including through networking, for beekeepers and beekeepers' organisations;

(b) investments in tangible and intangible assets, as well as other actions, including for:

(i) combatting beehive invaders and diseases, in particular varroasis;

(ii) preventing damage caused by adverse climatic events and promoting the development and use of management practices adapted to changing climate conditions;

(iii) restocking of beehives in the Union, including bee breeding;

(iv) rationalising transhumance;

(c) actions to support laboratories for the analysis of apiculture products, bee losses or productivity drops, and substances potentially toxic to bees;

(d) actions to preserve or increase the existing number of beehives in the Union, including bee breeding;

(e) cooperation with specialised bodies for the implementation of research programmes in the field of beekeeping and apiculture products;

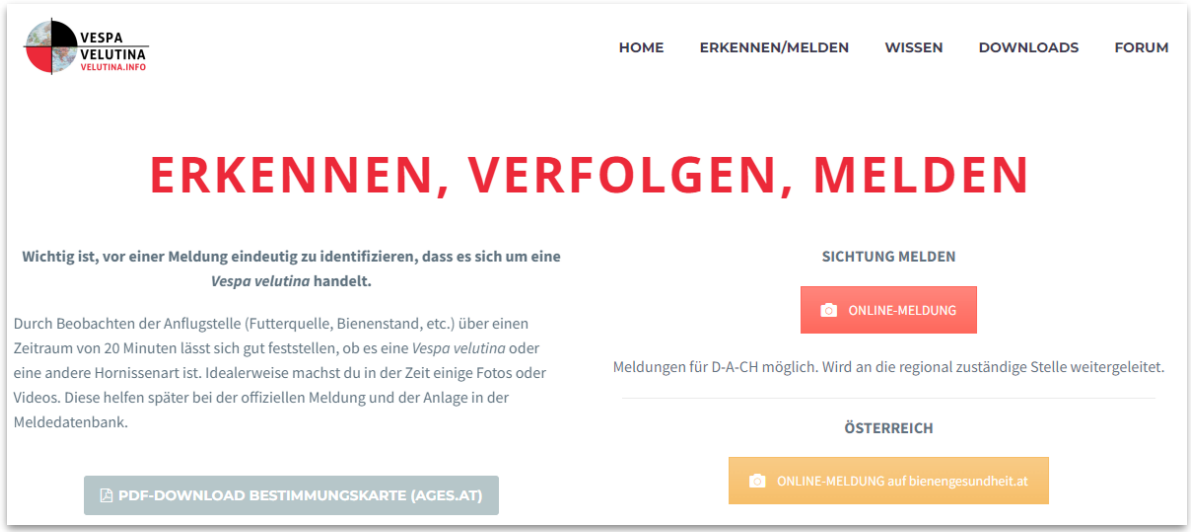
(f) promotion, communication and marketing including market monitoring actions and activities aimed in particular at raising consumer awareness about the quality of apiculture products;

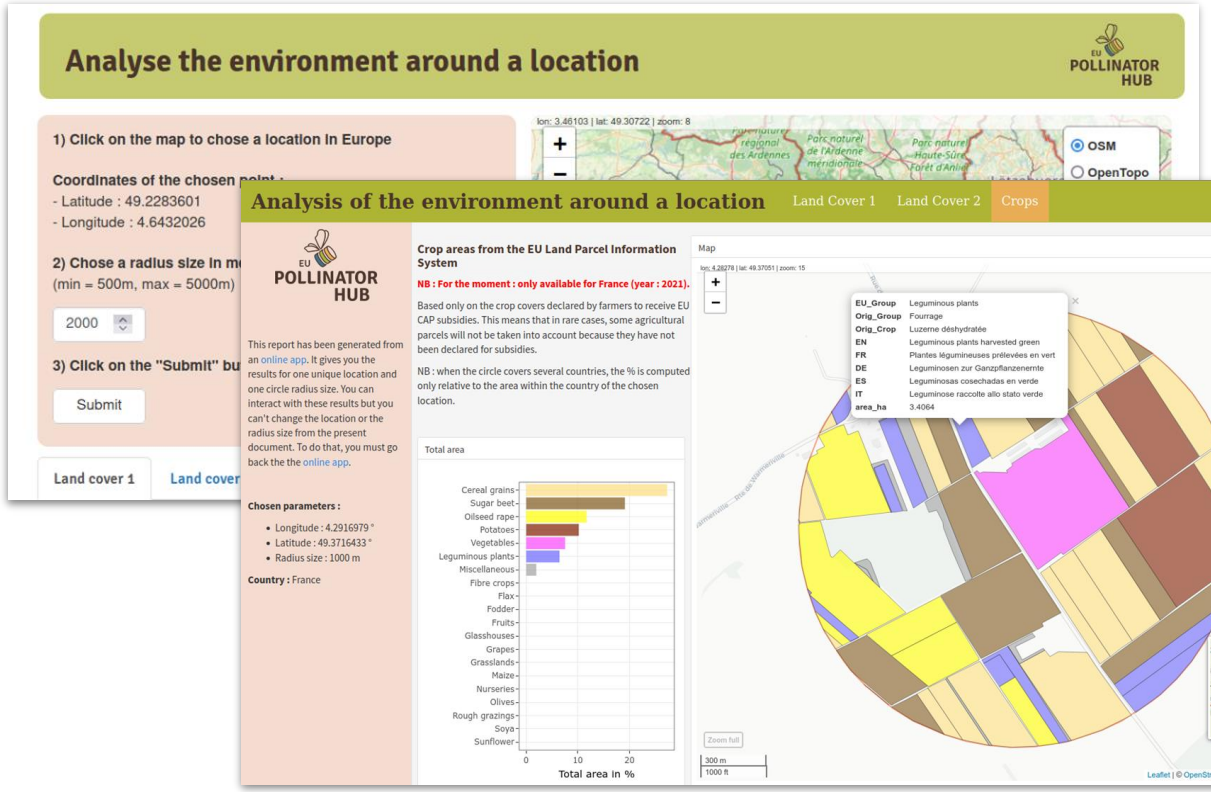
(g) actions to enhance product quality.

(a) advisory services, technical assistance, training, information and exchange of best practices, including through networking, for beekeepers and beekeepers' organisations;

Provide assistance with development of any tool that can help advise or technical assistance. Data is automatically shared with EU Pollinator Hub.

e.g., distribution of notifiable diseases, landscape information on apiaries, etc.





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(ii) preventing damage caused by adverse climatic events and promoting the development and use of management practices adapted to changing climate conditions;

EU Pollinator Hub › Data Catalogue › Varroa monitoring Austria

Varroa monitoring Austria

Results from a Varroa monitoring program in various apiaries in Austria

Provided by: Biene Österreich – Imkereidachverband

Contributors: Michael Rubinigg

An eight-year survey of Varroa destructor infestation rates of western honey bee (*Apis mellifera*) colonies across Austria and the spatial dimension, temporal dimension and weather factors that impact these infestation rates.

Reference

Rubinigg Michael , MacDonald Megan , Davenport Veronika , Hassler Ed , Hassan Awad , Shala-Mayrhofer Vitore , Cazier Joseph 2023 Aug. *Predicting Varroa: Longitudinal Data, Micro Climate, and Proximity Closeness Useful for Predicting Varroa Infestations (I1.A1)*. (English) [2023-11-04] External link

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Download Everything | Download metadata | Download Data

Table	Description	Formatted Downloads
hive [UID:VRRMN16.HIVEA141.0]	The table maps the relationship between beekeepers (anonymised users of the web application which is used by beekeepers to provide Varroa infestation data in their bee yards) and the hives for which t...	Download

Management

You are able to edit this model because of sufficient administrative privileges.

View in Management | Edit

Properties

Peer review status No peer review was requested.

Unique Identifier [VRRMN16.0.0]

URI https://app.pollinatorhub.eu/dataset-discovery/VRRMN16.0.0

Published 13 December 2023 00:00:00

Keywords

Austria, Varroa destructor, monitoring

Data collection years

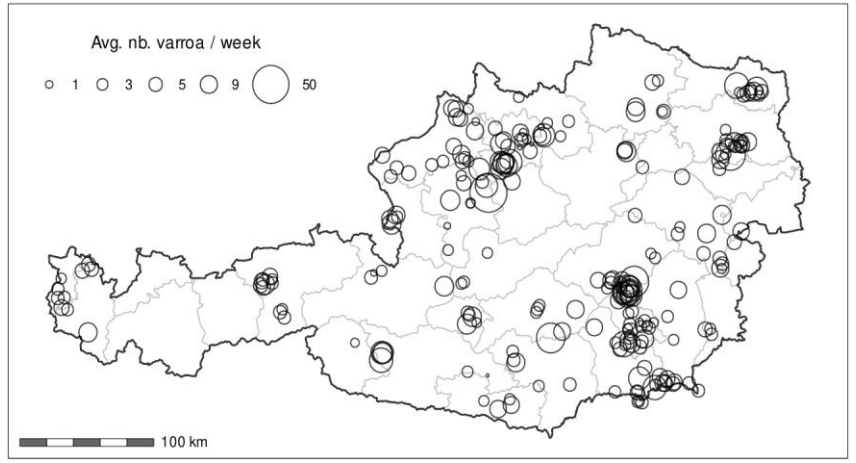
2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020

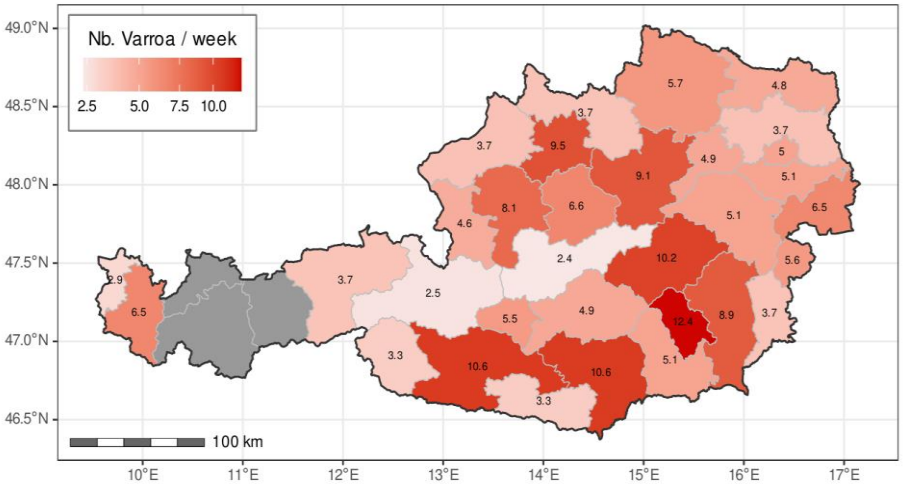
Regions, the data was collected in

Österreich

Citation

Michael Rubinigg 2023. Results from a Varroa monitoring program in various apiaries in Austria Ed. Biene Österreich – Imkereidachverband [2024-04-20] https://app.pollinatorhub.eu/dataset-discovery/VRRMN16.0.0





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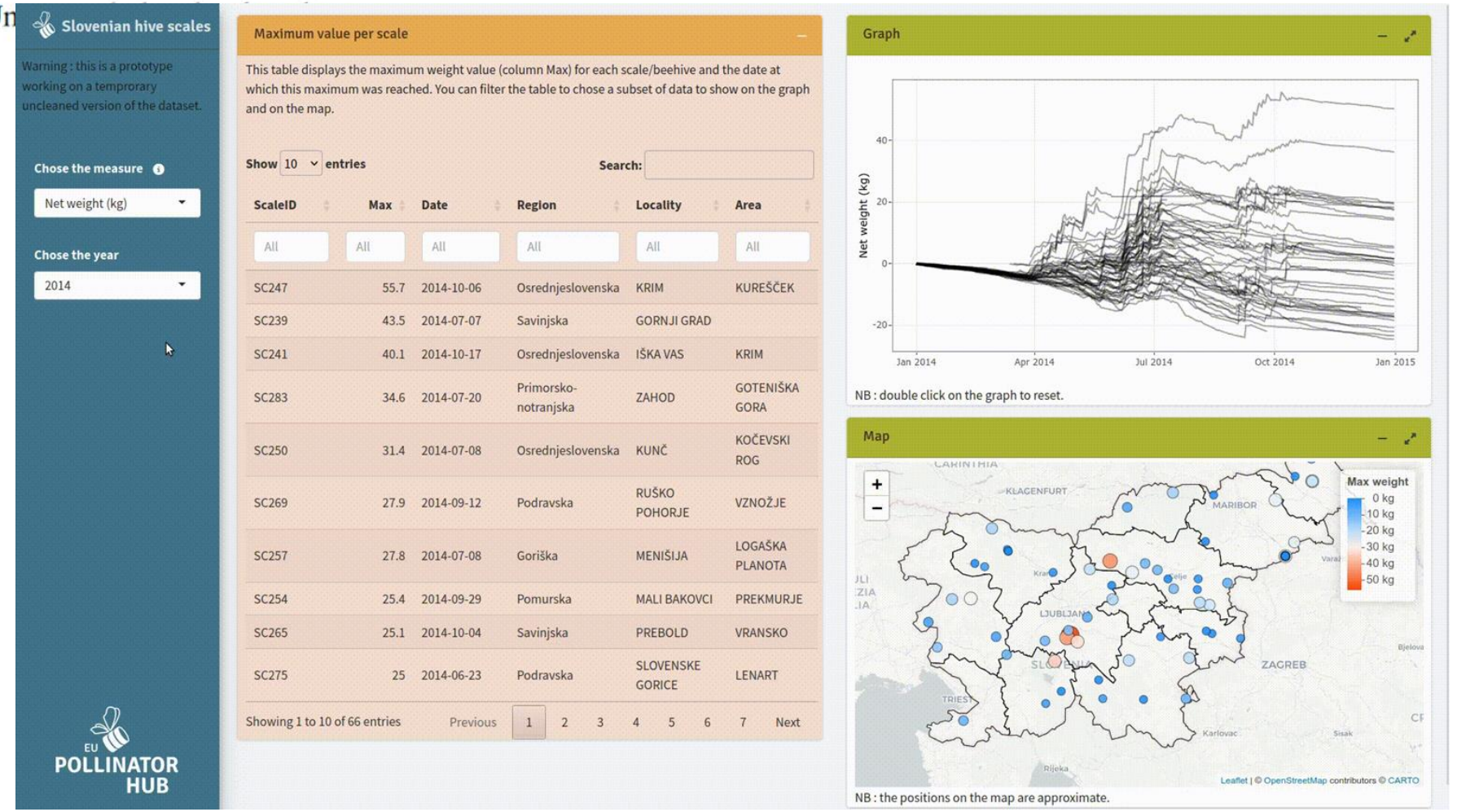
(iv) rationalising transhumance;



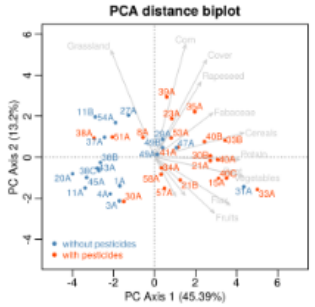
(c) actions to support laboratories for the analysis of apiculture products, bee losses or productivity drops, and substances potentially toxic to bees;

Share individual analytical results of honey with the EU Pollinator Hub

Beekeeping organisations doing analyses/Private Labs - share data with the EU Pollinator Hub

- Help standardisation of data
- Cross analytical data with other data (landscape, weather, scales data, etc.)

Maps can be generated - risk maps, communication maps to promote beekeeping image towards consumers, etc.



DEPAB2

DEPAB2 : Pollen, pesticides and landscape

Provided by: EU Pollinator Hub | Gilles San Martin

DEPAB2 : Pollen, pesticides and landscape

Honey bees pollen samples from Belgium, their species composition identified with classical microscopy, their pesticides content and the landscape around the apiaries in which they have been collected. Data from a project called DEPAB2 in Belgium.

Dataset related to the following paper : https://www.nature.com/articles/s41598-017-03467-5
Simon-Delso, N., San Martin, G., Bruneau, E., Delcourt, C., Hautier, L., 2017. The challenges of predicting pesticide exposure of honey bees at landscape level. Scientific Reports 7, 3801. doi:10.1038/s41598-017-03467-5

Reference
Simon-Delso Noa , San Martin Gilles , Bruneau Etienne , Delcourt Christine , Hautier Louis 2017 Jun. *The challenges of predicting pesticide exposure of honey bees at landscape level.* (English) [2020-09-24] External link

Tables New table

Table name	Licence	Data Points	File size	
lib_pesticides	No specific Licence	109	5.88 KiB	Edit

(d) actions to preserve or increase the existing number of beehives in the Union, including bee breeding;

Follow up of colony numbers or losses (e.g., data from COLOSS or associations to be integrated)

Integration of the pedigree data into a European standardised Database

Cross breeding data with other parameters (landscape, weather, costs, honey production, etc.)

Service for breeders:

- Tool to showcast the breeding efforts performed
- Classification/Ranking of breeders, queens, protocols, etc. - inventory
- Standardization of selection traits - provide more visibility to https://www.smartbees-fp7.eu

(e) cooperation with specialised bodies for the implementation of research programmes in the field of beekeeping and apiculture products;

Include the results of these publicly funded beekeeping related projects in the EU Pollinator Hub

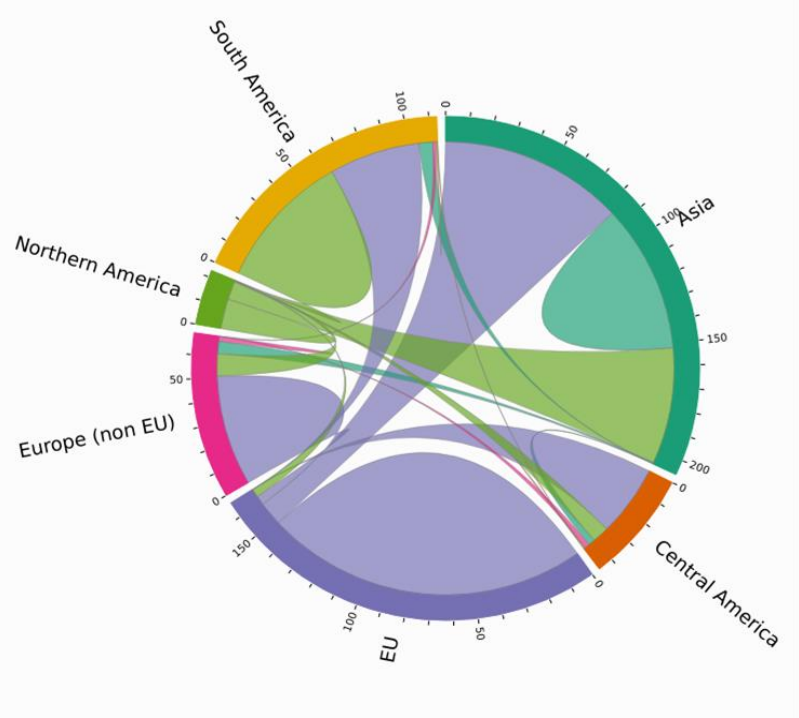
Provides visibility to national/regional activities

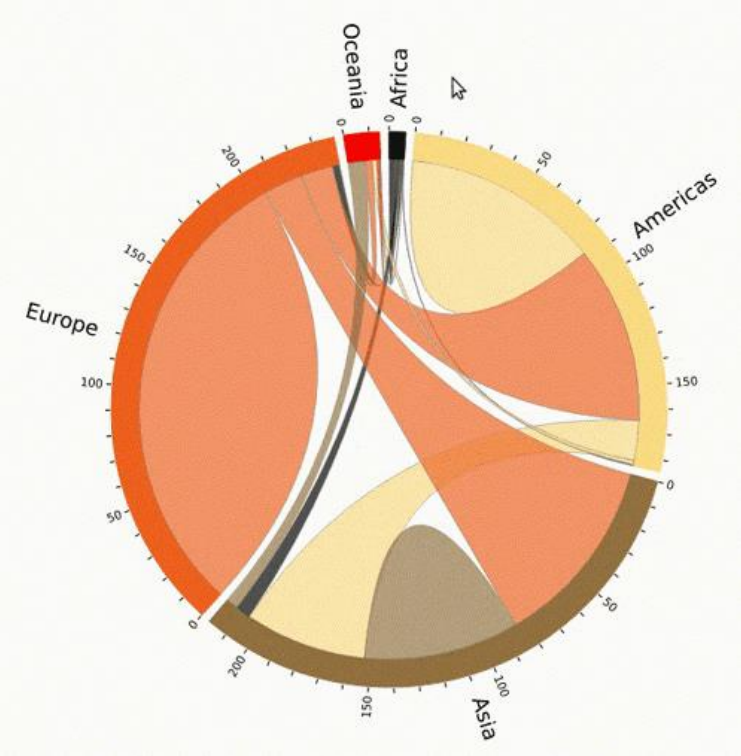
Allows to inventorize the large amount of field knowledge from beekeeping and spread the know-how of beekeepers in the countries

(f) promotion, communication and marketing including market monitoring actions and activities aimed in particular at raising consumer awareness about the quality of apiculture products;

Market follow up (incl. Prices, trade, labelling, specific products (GPIs, PDO, etc.), …)

Visibility to the problems of the sector to the consumer





EU POLLINATOR HUB

Collective approach in which, by using it for our own purposes, others can benefit. Protecting privacy and ownership.
We can help your projects by:

- Advice on field data collection, curation and communication
- Data curation service
- Data standardisation
- Data analytics
- Data visualisations
- Data hosting
- Doubts about pollinators and data interpretation
- Software development for data management
- Reporting

Advice on field data collection, curation and communication

Do you need to collect field data and do not know where to start? Are you collecting large datasets? would you like to ease their future analysis? Contact us from the beginning of your project, and we will help you design your database creation.

Data curation service

You are collecting data but do not know how to deal with it or ensure its quality? We will help you peer review it and provide you feedback for improvement.

Data standardisation

You are collecting data but do not know if your data will be useful for others or follows data standards? We help you with the standardisation process and documentation.

Data Analytics

You are collecting data but cannot analyse it? The EU Pollinator Hub includes basic data analytical tools for all Data Providers. If you need more developed statistical analytics, we will be able to help you as well.

Data visualisation

We provide several tailor-made data visualisation options for our Data Providers and Users. Just play with the options! If need be, we can customise data visualisations to your needs.

Data hosting

Are you collecting data or are about to publish it and looking for a long-term repository to publish it? The EU Pollinator Hub provides this service free of charge with reference possibilities (doi).

Doubts about pollinators and data interpretation?

Data means nothing if one does not know how to interprete or analyse it. It is then that data becomes usefull information. Do you need help interpreting what the data shows? Happy to be of help.

Software development for data management

Interested in automating data cleaning, transfer, or visualisation, contact us, and we will help you with it.

Reporting

We also provide several tailor-made data reporting options for our Data Providers and Users. Do not hesitate to explore them! And contact us if you do not find a reporting option that fits your needs.

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