



**V**  
b  
o  
r  
n  
**Net**

# VBORNET

"European Network for Arthropod Vector Surveillance for Human Public Health"

AGM Antwerp 2010



# VBORNET framework contract

- Open call for tender by ECDC
- Selection of consortium by ECDC based on objectives/ budget year 1
- Signature framework contract 2+2 between ECDC and main contractor
- Signature sub-contracts between main contractor and consortium members
- Signature specific contract/ budget for year 1
- Based on results year 1 → definition objectives/ budget year 2
- Signature specific contract/ budget for year 2
- The same procedure in Year 2 and 3
- At end year 4: VBORNET handed over to ECDC

## VBORNET general objectives (1/3)

- Establish a network of medical entomologists and public health professionals in the EU.
- The network should support ECDC in strengthening vector surveillance activities to improve preparedness towards VBDs in the EU.
- It is crucial that within the network, the entomological expertise is directly linked and applied to public health expertise and experience.

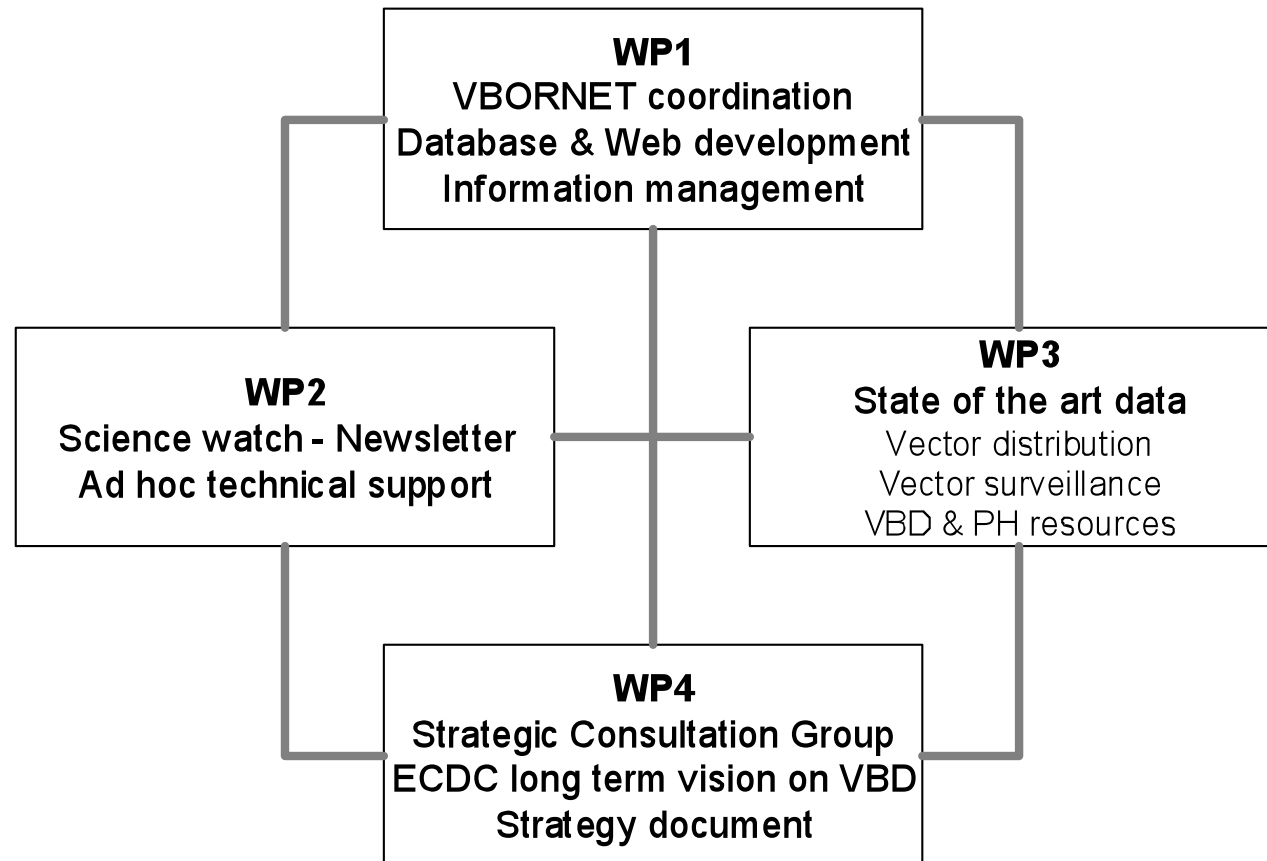
## VBORNET general objectives (2/3)

- The tenderer is encouraged to build a consortium, joining different entomologists and public health specialists from academic, non-governmental and public health institutions with an assigned institution responsible for each of the four work packages.

## VBORNET general objectives (3/3)

- The scope of the network should address – as a minimum – the vector surveillance activities for arthropods of importance to the following priority diseases in the EU:
  - MBD: chikungunya, dengue, West Nile.
  - TBD: TBE, CCHF, Lyme, tularaemia, rickettsiosis.
  - PhBD: Leishmaniasis, sandfly fevers.
- However, the tenderer is encouraged to cover additional arthropod-borne diseases of importance to public health in the EU.

# VBORNET Work Packages



# VBORNET Consortium (1/4)

- WP 1: Secretariat, information management and coordination of the network:
  - Leader: Guy Hendrickx – Euro-AEGIS (Avia-GIS)
  - Contributors:
    - Els Ducheyne – Euro-AEGIS (Avia-GIS)
    - Bart de Groot – Euro-AEGIS (Avia-GIS)
    - Willy Wint – Euro-AEGIS (ERGO)



## VBORNET Consortium (2/4)

- WP 2.1: Science watch and News Letters:
  - Leader: Paolo Calistri – IZS AM



- WP 2.2: Technical support and risk assessment fact sheets:
  - Leader: Jolyon Medlock – HPA





# VBORNET Consortium (3/4)

- WP 3: Vector surveillance and distribution data:

- Leader: Veerle Versteirt – ITM



- Vector network focal points:

- Mosquitoes: Francis Schaffner – Avia-GIS

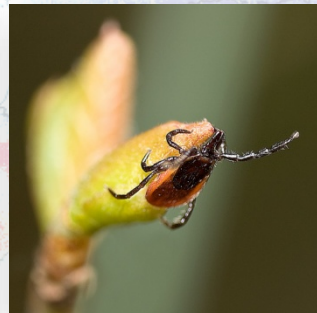
- Ticks: Laurence Vial – CIRAD

- Phlebotomes: Bülent Alten - HACETTEPE

- Other arthropod vectors: Pierre-Edouard Fournier – UNIVMED



Antwerp, June 2010

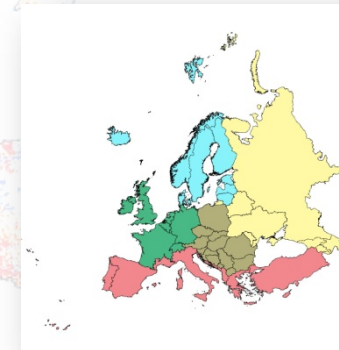


VBORNET AGM

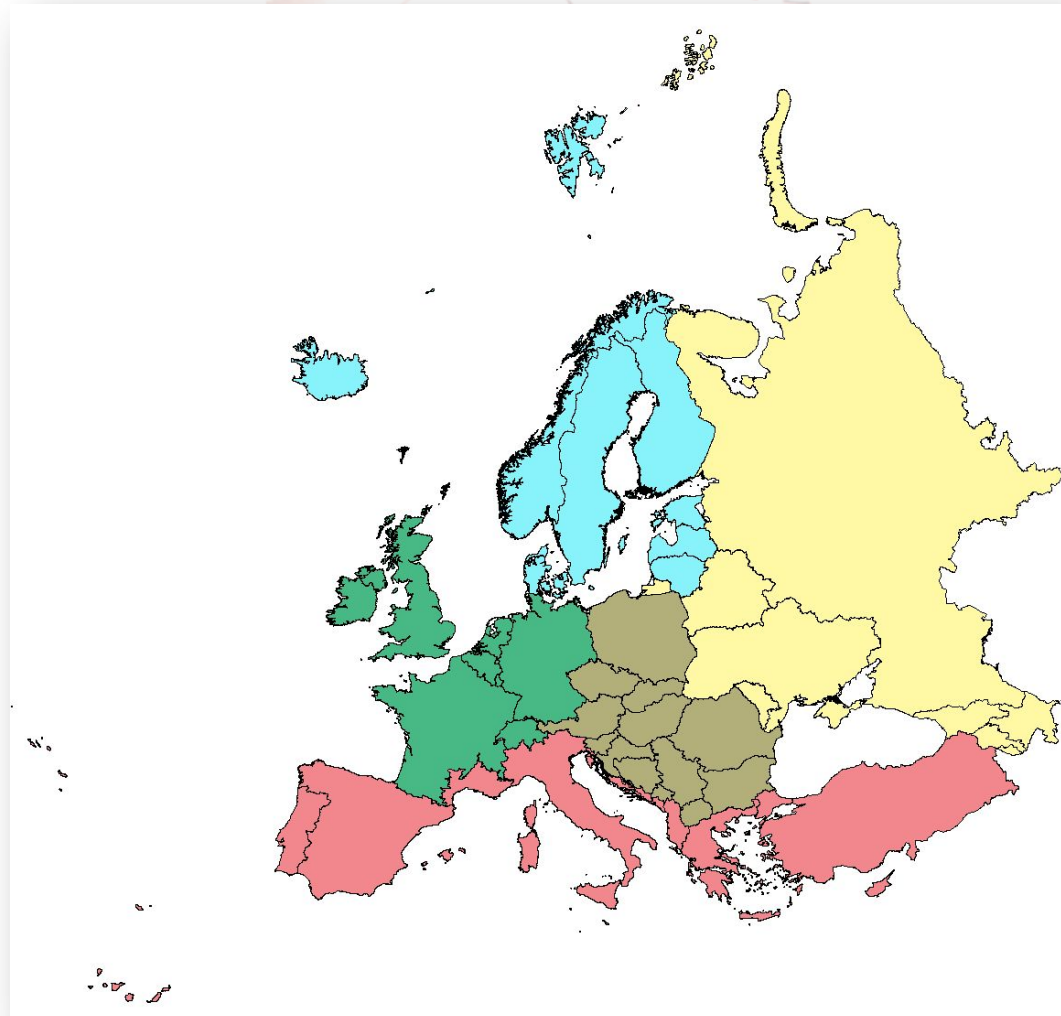


# VBORNET Consortium (4/4)

- WP 4: Strategic consultation group (VBD public health):
  - Leader: Joke van der Giessen – RIVM
  - Public health focal points:
    - Northern EU: Marika Hjertqvist – SMI
    - Western Temperate EU: Joke van der Giessen – RIVM
    - Central Temperate EU: Zdenek Hubalek - IVB
    - Mediterranean basin: Renaud Lancelot – CIRAD
    - Overseas EU: Didier Fontenille – IRD



# VBORNET PH geographical zones



# VBORNET KOM 9/9/2009



Antwerp, June 2010

VBORNET AGM

12



WP1

# Objectives, Achievements and Suggestions for Future Activities

# Objectives WP1

- Data sharing rules
- Network development
- Network administration, coordination and communication
- ICT development:
  - Database
    - Vector distribution tool
    - Related expert database
    - Data quality control tool
  - Web portal
- Kick-off meeting, Steering Committee meetings and Annual General Meeting

# Achievements WP1 (1/6)

## Data sharing rules

- ***What is the value for you to become a VBORNET network member?***  
As an active network member contributing information to VBORNET you will have access to the VBORNET raw VBD data and resources, have the possibility to contribute to VBD/PH priority setting in Europe as a member of expert panels (e.g. annual VBORNET meeting) and be listed as an official VBORNET network member.
- ***How will the VBD community as a whole benefit from VBORNET?***  
VBORNET aims to make available through internet regularly updated vector distribution maps of the major arthropod vectors of diseases in Europe, inventory of VBD and related PH expertise, publications, surveillance and control activities, and a monthly newsletter with news items and events.
- ***What is VBORNET expecting from you as a network member?***  
The VBORNET network is looking for VBD experts who are interested in data sharing and networking. At this early stage VBORNET will focus on acquiring baseline data on confirmed vector presence at various administrative scales (NUTS 1-2-3) and quality control of the various VBORNET database inputs. VBORNET network members can be representatives of other existing VBD networks.

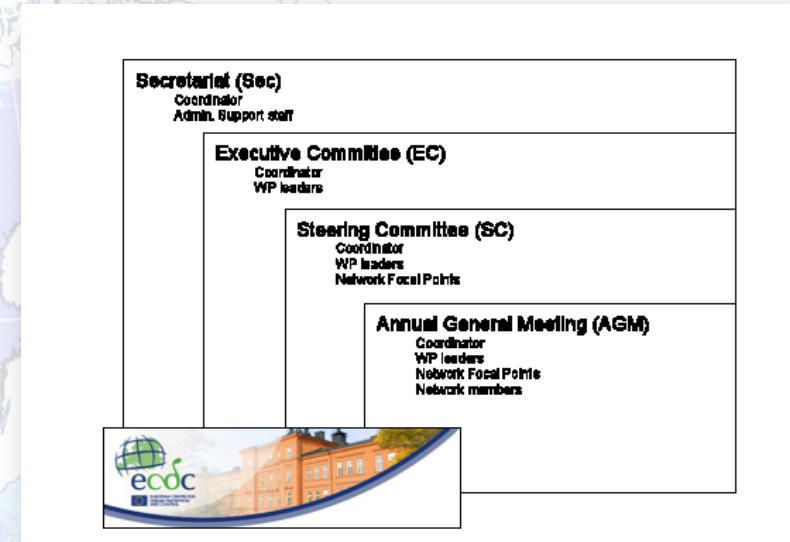
## Achievements WP1 (2/6)

- Network development:
  - EDEN, V-borne, TigerMaps
  - Open request for membership
  - Network member inputs
  - Links with other networks: ENIVD, EMCA, ICTTD
  - 400+ VBD experts currently listed
  - 60 invited at AGM (as per contract)



# Achievements WP1 (3/6)

- Network administration:
  - KOM
  - Liaison with ECDC
  - Coordination consortium
  - Coordination network
  - AGM (seperate budget)



		2009				2010							
		9	10	11	12	1	2	3	4	5	6	7	8
Tel C onferences	KOM SC	X											
	Sec-ECDC	X	X		X	X		X	X		X	X	
	EC	X	X		X	X		X	X		X	X	X
	EC-ECDC			X						X			X
	SC						X						
AGM											X		

# Achievements WP1 (4/6)

- Database and webportal
  - ICT standardization issue
    - ECDC webpage  
<http://www.ecdc.europa.eu/EN/ACTIVITIES/DISEASEPROGRAMMES/Pages/VBORNET.aspx>
    - EDEN webpage  
<http://edendatasite.com> click VBORNET TAB
  - Vector distribution tool
    - Downloadable
    - User manual
    - Automatic data upload to database
    - Quality control tool

# Achievements WP1 (5/6)

The screenshot displays the VBORNET website interface. On the left, there is a navigation menu with options: All, Downloads, Text, Publications, and Field Sites, along with a search bar. Below this is a 'Members Login' section with fields for Username and Password, and a 'Remember Me' checkbox. The main content area features the ECDC logo and the text 'VBORNET – European Human Public Health'. It outlines the project's objective and lists three key steps: 1. Establishment of the VBC inventory, 2. Establishment of a VBOR range of vector-borne diseases in Europe, and 3. Establishment of a VBOR public health (PH) activities. A 'Download VBORNET Newsletters' section lists links for Newsletter 5, 4 (Coming soon), 3, 2, 1, and 0. Below that is a 'Download VBORNET Vector Questionnaire' section. A red circle highlights a 'VBORNET' button in the top right navigation area. At the bottom, a line graph shows the number of users over time from February to May 2010, with three data series: Distribution Tool Windows (blue), Distribution Tool Mac (red), and Help file (green).

**Download VBORNET Newsletters**

- [Newsletter 5](#)
- *Newsletter 4 (Coming soon)*
- [Newsletter 3](#)
- [Newsletter 2](#)
- [Newsletter 1](#)
- [Newsletter 0](#)

**Download VBORNET Vector Questionnaire**

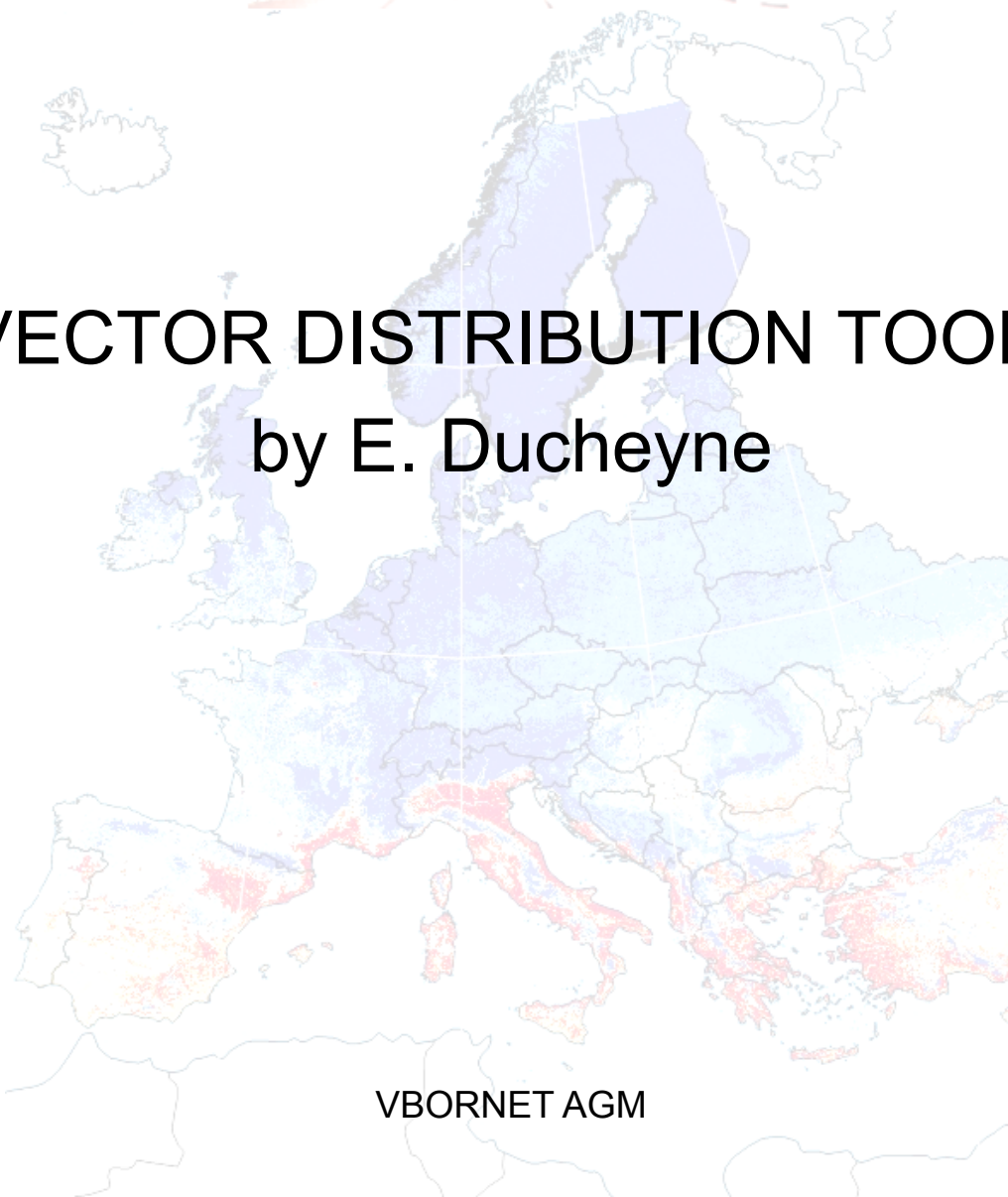
**Usage Statistics (Line Graph):**

Date	Distribution Tool Windows	Distribution Tool Mac	Help file
01-02-2010	0	0	0
08-02-2010	10	5	20
15-02-2010	20	10	45
22-02-2010	30	15	60
01-03-2010	40	20	80
08-03-2010	50	25	100
15-03-2010	60	30	120
22-03-2010	70	35	140
29-03-2010	80	40	160
05-04-2010	90	45	175
12-04-2010	100	50	185
19-04-2010	110	55	190
26-04-2010	120	60	195
03-05-2010	130	65	200
10-05-2010	140	68	205
17-05-2010	150	70	210
24-05-2010	160	72	215
31-05-2010	170	75	220

Antwerp, June 2010

# Achievements WP1 (6/6)

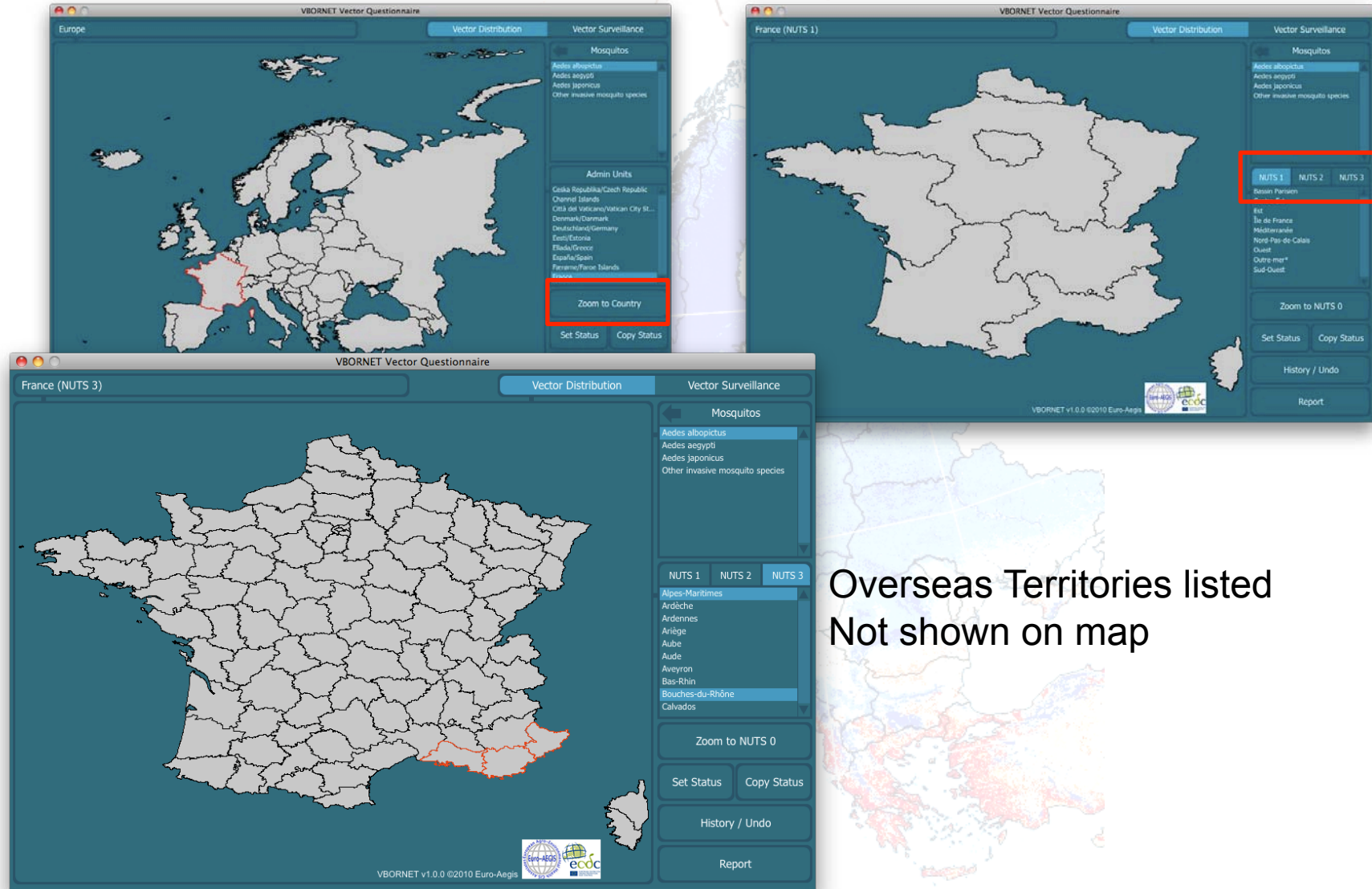
## VECTOR DISTRIBUTION TOOL by E. Ducheyne



# VBORNET Distribution Tool

- Collect data at different NUTS levels
  - Entomological
  - Surveillance
- Spatial coverage
  - Continental Europe
  - Overseas Territories
- Standardised definition of status
- Periodic generation of maps

# VBORNET Distribution Tool



The image displays three sequential screenshots of the VBORNET Vector Questionnaire interface, illustrating the zooming process from a continental view to a detailed regional view.

- Top Left Screenshot:** Shows the 'Europe' view. The 'Admin Units' list includes various countries and regions. A red box highlights the 'Zoom to Country' button.
- Top Right Screenshot:** Shows the 'France (NUTS 1)' view. The 'NUTS 1' button in the 'Vector Surveillance' panel is highlighted with a red box.
- Bottom Screenshot:** Shows the 'France (NUTS 3)' view, displaying a detailed map of France with its administrative regions. The 'NUTS 1' button is still visible in the 'Vector Surveillance' panel.

Overseas Territories listed  
Not shown on map

# VBORNET Distribution Tool

- Automatic up/downscaling mechanism
  - If there is a ‘Recently present/Yes’ entered at NUTS3
    - Automatic Downscaling to lower NUTS levels
    - NUTS3->NUTS0 will get ‘Recently present/Yes’
  - If there is a ‘Absent/No’ entered at NUTS0
    - Automatic Upscaling to higher NUTS levels
    - NUTS0->NUT3 will get ‘Absent/No’
- Recommendation for users:
  - Enter ‘Recently present/Yes’ at highest level
  - Enter ‘Absent/No’ at lowest level

# VBORNET Distribution Tool

VBORNET Questionnaire – Set Status

Questionnaire

**D1: Is *Aedes albopictus* present:**

**D2: Environment:**  Only Present In Sheltered Environment, Specify:

**D3: Date first confirmed record:**  NA  Don't Know  Date (ddmmyyyy):

**D4: Date last confirmed record:**  NA  Don't Know  Date (ddmmyyyy):

**D5: Scientist providing information:**

5.1.1 Surname (\*):  5.1.2 First Name(s) (\*):

5.1.3 Title:  5.1.4 Position:  5.1.5 Phone Office:

5.1.7 E-mail (\*):  5.1.6 Phone Mobile:

5.2.1 Organisational legal name (\*):

5.2.2 Org. short name:  5.2.3 Department/Faculty/Institute/Laboratory:

5.3.4 Street name and number:  5.3.1 PO Box:

5.3.2 Postal Code:  5.3.3 Cedex:  5.3.5 Town:  5.3.6 Country:

5.3.7 Internet homepage:

**D6: Point data:**  Related GIS Point Data is available

**D7: Published source:**

Please answer all items. D5 items marked with a (\*)

Online Help

**D1: Is species present**

Please indicate the current status of the species' presence. The categories are defined as:

1. indigenous: species has been present at least since beginning of 19th century
2. recently present: species has been recently introduced
3. absent: species has always been absent
4. extinct: indigenous species is now absent
5. not anymore: recently present species is now absent
6. no data: it is confirmed that there is no data available
7. unknown: there is no information about status nor whether data is available

**D2: Presence only in sheltered environment**

Please indicate if the species is only found in a sheltered environment and cannot survive outside. Select the type of sheltered environment from the drop-down list, or add a different category if required.

**D3: Date first confirmed record**

Indicate whether you have information about the first date of confirmation of the presence/absence status.

**D4: Date last confirmed record**

Indicate whether you have information about the last date of confirmation of the presence/absence status.

**D5: Scientist providing information**

Enter your personal details. You can retrieve previously entered data using the 'Re-use expert' drop-down list.

**D6: GIS related point data is available**



# VBORNET Distribution Tool



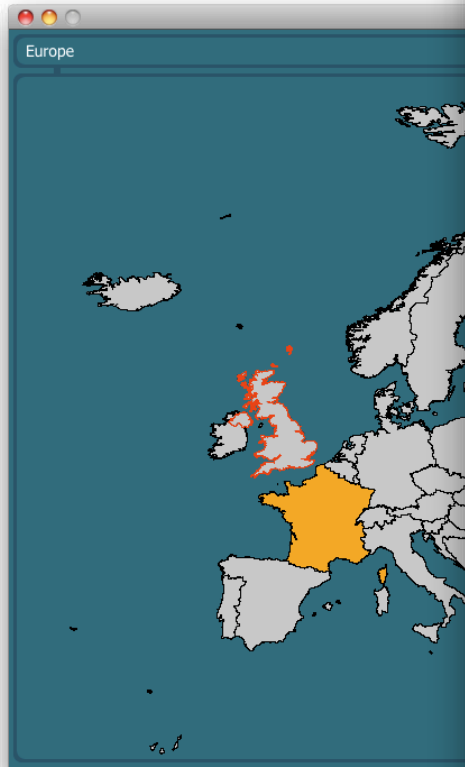
Automatic Downscaling

Antwerp, June 2010

VBORNET AGM

25

# VBORNET Distribution Tool



VBORNET Questionnaire – Set Status

Questionnaire

**D1: Is Aedes albopictus present:** Absent

**D2: Environment:**  Only Present In Sheltered Environment, Specify: \_\_\_\_\_

**D3: Date first confirmed record:**  NA  Don't Know  Date (ddmmyyyy): \_\_\_\_\_

**D4: Date last confirmed record:**  NA  Don't Know  Date (ddmmyyyy): \_\_\_\_\_

**D5: Scientist providing information:** Re-use recently entered expert: \_\_\_\_\_

5.1.1 Surname (\*): Schaffner 5.1.2 First Name(s) (\*): Francis

5.1.3 Title: \_\_\_\_\_ 5.1.4 Position: \_\_\_\_\_ 5.1.5 Phone Office: \_\_\_\_\_

5.1.7 E-mail (\*): francis.schaffner@access.uzh.ch 5.1.6 Phone Mobile: \_\_\_\_\_

5.2.1 Organisational legal name (\*): University of Zürich

5.2.2 Org. short name: \_\_\_\_\_ 5.2.3 Department/Faculty/Institute/Laboratory: \_\_\_\_\_

5.3.4 Street name and number: \_\_\_\_\_ 5.3.1 PO Box: \_\_\_\_\_

5.3.2 Postal Code: \_\_\_\_\_ 5.3.3 Cedex: \_\_\_\_\_ 5.3.5 Town: \_\_\_\_\_ 5.3.6 Country: \_\_\_\_\_

5.3.7 Internet homepage: \_\_\_\_\_

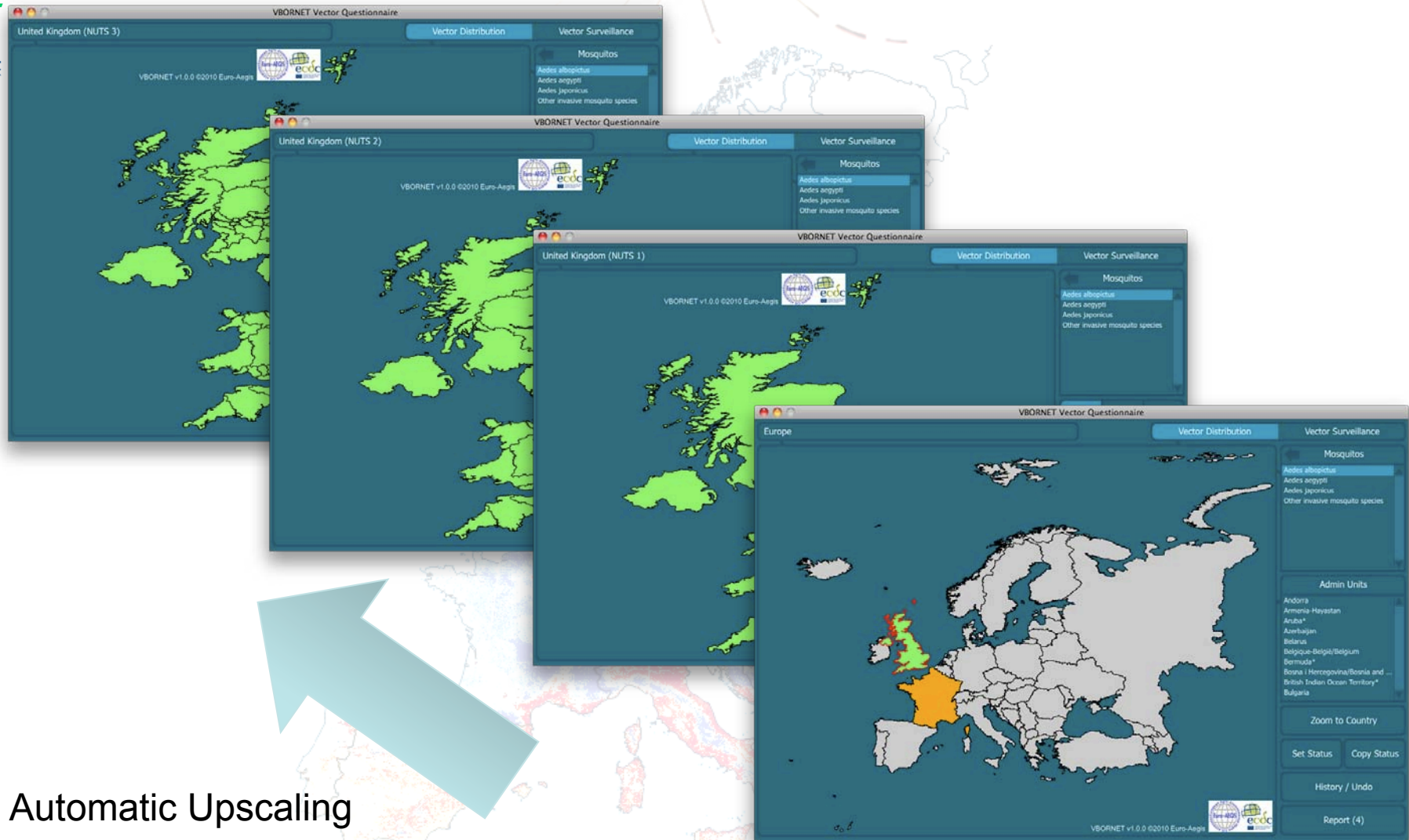
**D6: Point data:**  Related GIS Point Data is available

**D7: Published source:** \_\_\_\_\_

Please answer all items. D5 items marked with a (\*) are compulsory.

Clear Close Apply

# VBORNET Distribution Tool



Automatic Upscaling

Antwerp, June 2010

VBORNET AGM

27

# VBORNET Distribution Tool

Making changes



Status Change History

Below is a list of status changes you have made. You can choose to undo each last change you made, from the changes marked 'undoable'. The status change will be reversed, including all the admin units that were changed from up/downscaling. When you report status changes to the central server you can no longer undo them, and they are marked with 'reported' in the list below. If you believe there is a problem with information your reported, please look up the ref# in the list below of the admin units in question, and contact support.

Date	AdminU	Vector	Change	Units	Report Status	Ref#
31-05-2010 19:28	United Kingdom (NUTS 0)	Aedes albopictus	Distribution: Absent	179	Undoable	
31-05-2010 13:04	Alpes-Maritimes (NUTS 3)	Aedes albopictus	Distribution: Recently Present	4	Undoable	
31-05-2010 13:04	Bouches-du-Rhône (NUTS 3)	Aedes albopictus	Distribution: Recently Present	1	Undoable	
31-05-2010 13:04	Var (NUTS 3)	Aedes albopictus	Distribution: Recently Present	1	Undoable	

Done

VBORNET Vector Questionnaire

Europe

Vector Distribution

Vector Surveillance

Mosquitos

- Aedes albopictus
- Aedes aegypti
- Aedes japonicus
- Other invasive mosquito species

Admin Units

- Ceska Republika/Czech Republic
- Channel Islands
- Città del Vaticano/Vatican City St...
- Denmark/Danmark
- Deutschland/Germany
- Eesti/Estonia
- Ellada/Greece
- España/Spain
- Færøerne/Faroe Islands
- France

Zoom to Country

Set Status Copy Status

History / Undo

Report (4)

VBORNET v1.0.0 ©2010 Euro-Aegis

# VBORNET Distribution Tool

**Report**

! The status changes you have made will be reported to the central server. Each be reported individually. After they have been reported you will no longer be al Each reported item will be marked with a reference number, you can find this r undo window listing in the ref# column. If you need to contact support about a problem please include this reference number.

**Admin units to report:** 4

**Username:**

**Password:**

**Sign Up**

! The VBORNET Vector Questionnaire tool requires you to have a VBORNET enabled EDEN DMT website account. Please fill out the fields below to create such an account and have it VBORNET enabled. If you already have an EDEN DMT account, please click the 'I already have an EDEN DMT account' button to have it VBORNET enabled. Items with a bold label and an asterisk (\*) are compulsory.

**Username (\*):**  Your username can only contain letters (a-z) and numbers (0-9). Your username may not contain any other characters or spaces. Usernames are case sensitive!

**Password (\*):**  Your password must be secure. It must be at least 6 characters long and must include both letters and numbers.

**Confirm Password (\*):**

9 6 3 a 0 **Confirm Code (\*):**  Enter the code exactly as you see it. The code is case sensitive.

**Name (\*):**

**Email (\*):**

Website:

Institution:

Street1:

Street2:

Province:

Postal Code:

City:

Country:

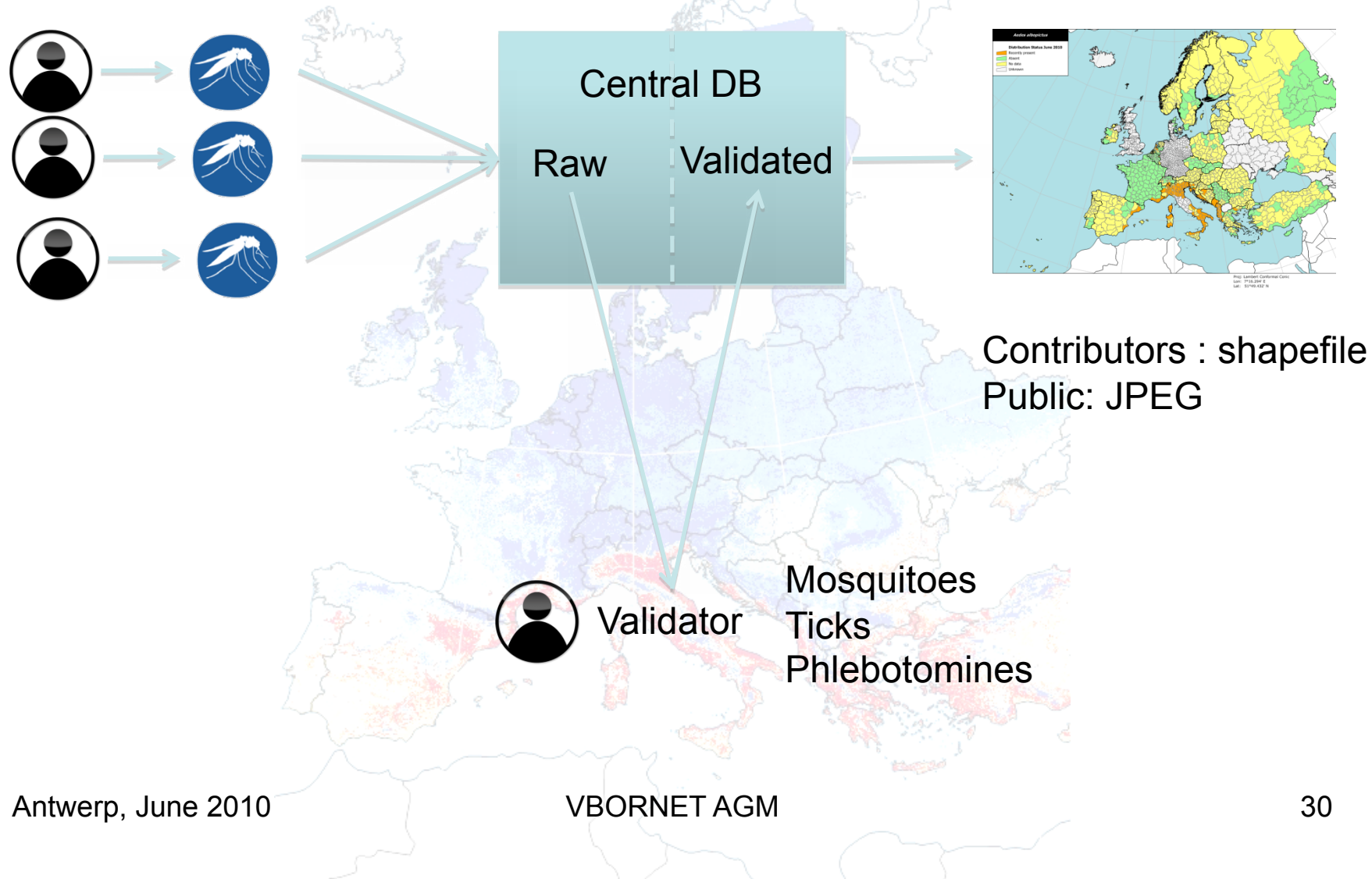
Phone:

Fax:

After successful upload

- confirmation
- data entry not 'undo'

# What happens to your data



# Validation procedure

- Validator downloads new entries using validation tool
  - Split according to period
  - Split according to three groups
- Validation tool
  - Per admin unit all entries from multiple contributors are listed
  - Validation of
    - Expert data
    - Entomological/Surveillance data
  - Assignment of overall status per admin unit

# VBORNET Validation tool

The period loaded is period number 1.  
Starting from 01-01-2010 and ending before 01-04-2010.  
You have to upload your validation data between 01-04-2010 and 14-04-2010.

**Download** **Upload**

Vector Distribution	Vector Surveillance	Admin Unit	Unver.	Total	Current Status	New Status
Arthropod	Unverified	▶ Schweiz-Suisse-Svizzera/Switzerland	27	27		
▶ Vectors		▶ România/Romania	9	9		
▶ Mosquitos		▶ Rossija/Russia	8	8		
Aedes albopictus	61	▶ Slovenija/Slovenia	3	3		Absent
Aedes aegypti	8	▶ Belarus	3	3		
▶ Ticks		▶ Magyarorszag/Hungary	3	3		
▶ Phlebotom						

The period loaded is period number 1.  
Starting from 01-01-2010 and ending before 01-04-2010.  
You have to upload your validation data between 01-04-2010 and 14-04-2010.

**Download** **Upload**

Vector Distribution	Vector Surveillance	Admin Unit	Unver.	Total	Current Status	New Status
Arthropod	Unverified	▶ Schweiz-Suisse-Svizzera/Switzerland	27	27		
▶ Vectors		▶ Schweiz-Suisse-Svizzera/Switzerland (N-1)	27	27		
▶ Mosquitos		▶ Ostschweiz (N-2)	7	7		
Aedes albopictus	61	Appenzell Ausserrhoden (N-3)	1	1		
Aedes aegypti	8	Appenzell Innerrhoden (N-3)	1	1		
▶ Ticks		Glarus (N-3)	1	1		
▶ Phlebotomines		Graubünden (N-3)	1	1		
		Schaffhausen (N-3)	1	1		
		St. Gallen (N-3)	1	1		
		Thurgau (N-3)	1	1		
		▶ Zentralschweiz (N-2)	6	6		
		▶ Espace Mittelland (N-2)	6	6		
		▶ Nordwestschweiz (N-2)	3	3		
		▶ Région lémanique (N-2)	3	3		
		▶ Ticino (N-2)	1	1		
		▶ Zürich (N-2)	1	1		
		▶ România/Romania	9	9		
		▶ Rossija/Russia	8	8		
		▶ Slovenija/Slovenia	3	3		Absent
		▶ Belarus	3	3		
		▶ Magyarorszag/Hungary	3	3		
		▶ Bouvet	2	2		
		▶ Channel Islands	1	1		
		▶ Ireland	1	1		
		▶ Italia/Italy	1	1		
		▶ Latvija/Latvia	1	1		
		▶ Liechtenstein	1	1		
		▶ Serbia	1	1		
		▶ Andorra				
		▶ Anguila				

Starting Up

**VBORNET**

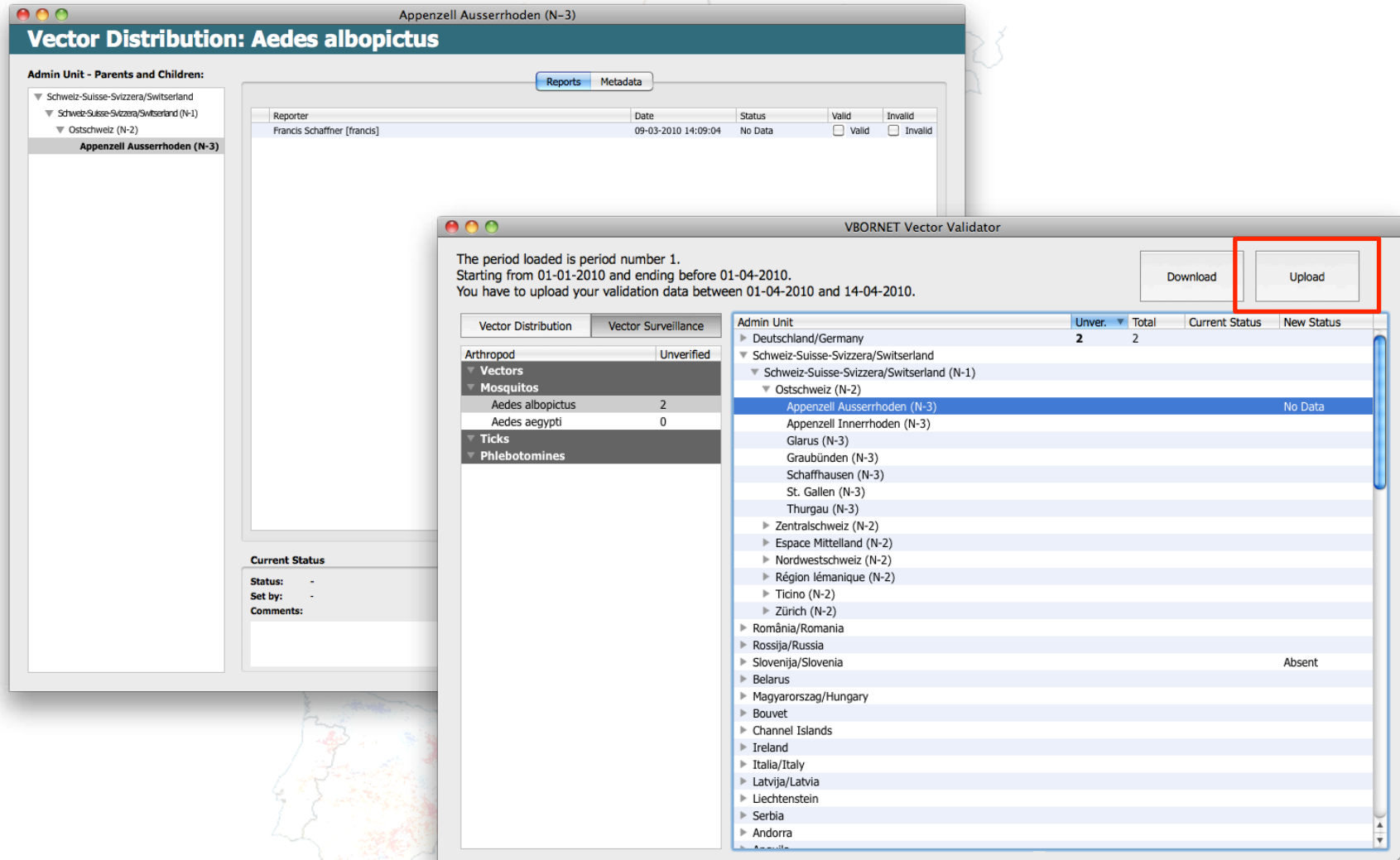
ecdc  
EUROPEAN CENTRE FOR  
DISEASE PREVENTION  
AND CONTROL

European Agro-Environment Health GIS Association  
Euro-AEGIS

Finishing...



# VBORNET Validation tool



Appenzell Ausserrhoden (N-3)

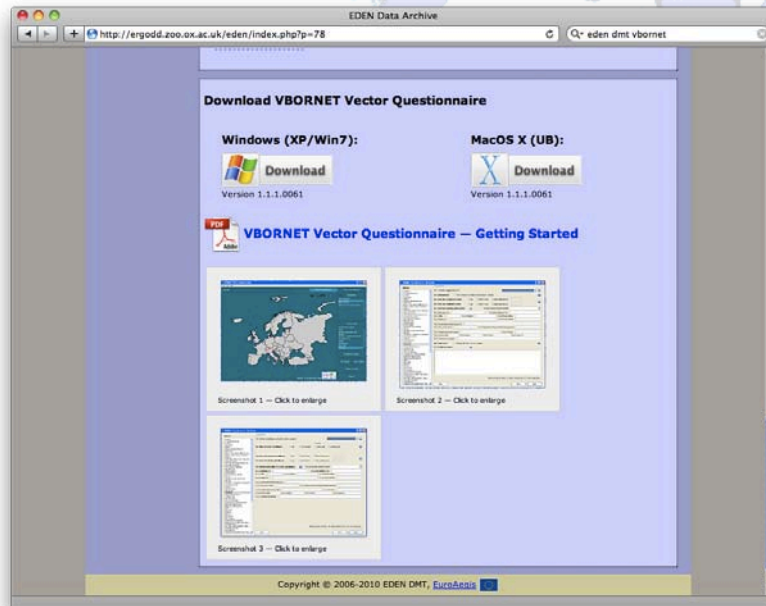
### Vector Distribution: Aedes albopictus

Admin Unit - Parents and Children:

- Schweiz-Suisse-Svizzera/Switzerland
  - Schweiz-Suisse-Svizzera/Switzerland (N-1)
    - Ostschweiz (N-2)
      - Appenzell Ausserrhoden (N-3)**

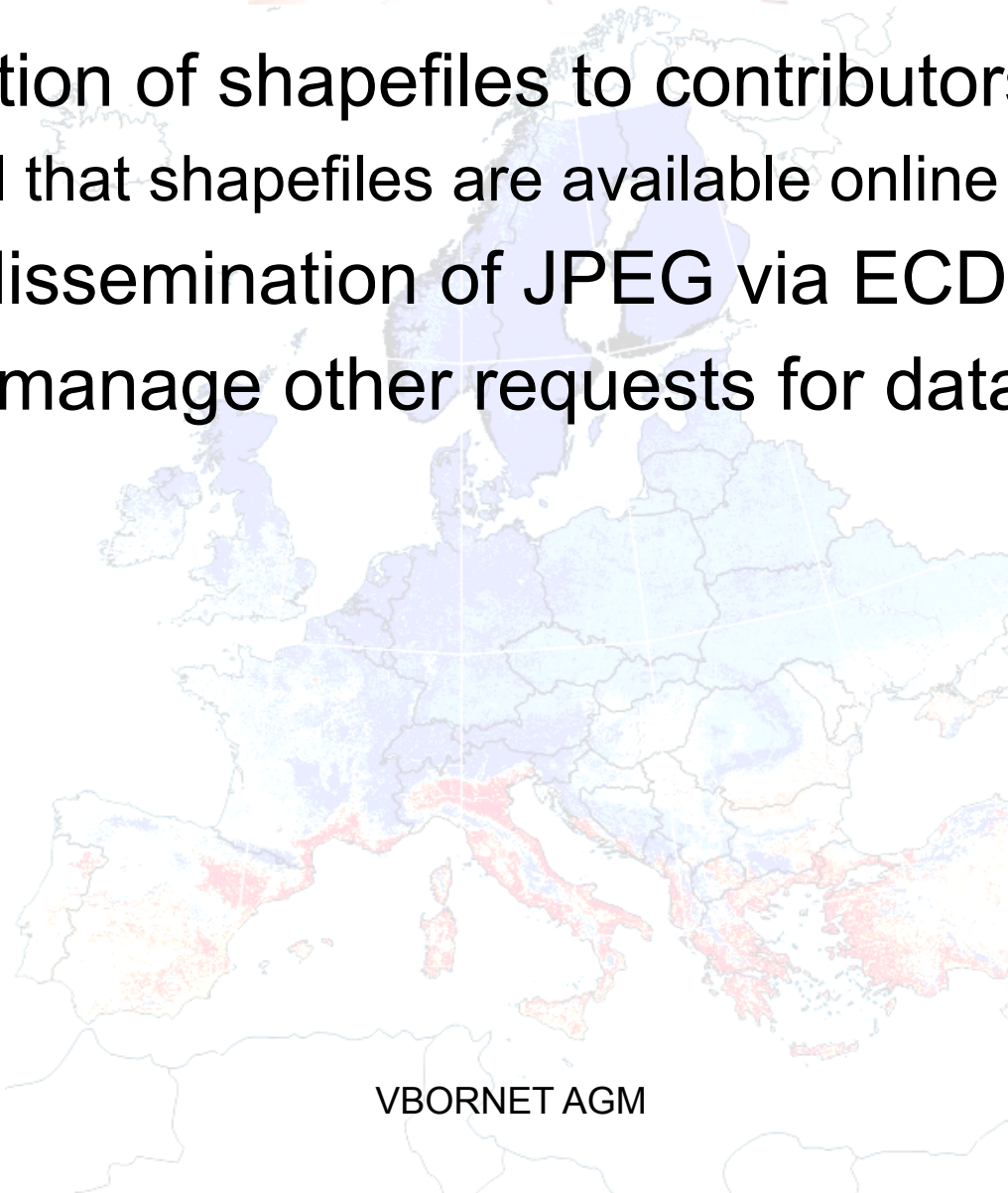
# Where can we find everything?

- All tools + documentation available on EDEN datasite <http://edendatasite.com> click VBORNET TAB
- Available for Windows and Mac OS



# Dissemination

- Distribution of shapefiles to contributors
  - E-mail that shapefiles are available online
- Public dissemination of JPEG via ECDC
- How to manage other requests for data access?



## Points to consider for future developments

- How to deal with **data gaps** and how may spatial modelling approaches contribute to alleviate this?
- Under which circumstances are **additional field data** needed? How to acquire such data?
- How to use **spatial models** with the available data to identify vector specific climatic envelopes and how these may serve as a basis for predicting distribution shifts.
- How to use the vector data base to contribute to VBD **risk analysis** studies? Should we compile additional vector parameters such as vector species co-occurrence using primary database?



Thank you for your questions!

**V**  
b  
o  
r  
n  
**Net**

<http://www.ecdc.europa.eu/EN/ACTIVITIES/DISEASEPROGRAMMES/Pages/VBORNET.aspx>

<http://edendatasite.com> click VBORNET TAB



Antwerp, June 2010



VBORNET AGM



37