Health & Consumer Protection
Directorate General

Animal Disease Notification System
Technical Evolution
Objectives
Technology
Functionality
Planning
Objectives ADNS Application

- Maintain and host a robust application, in line with the Commission’s hosting standards
- Technical platform suitable for the next 5 years
- Flexible and manageable system: easier to maintain
- Additional reporting options
- Improve geographical imaging options
- On-line map drawing
ADNS Technology

Changes to the System:
- ColdfusionMX replaces Silverstream.
- Development methodology: MachII.
- Database (Oracle10g) upgraded.
- Adding new functionalities.

Silverstream no longer supported.
Coldfusion MX standard development tool for web applications.
ADNS Functionality - Process Flow

- ADNS allows the member states to add, modify their own outbreaks declaration, and consult all outbreaks for all member states.
- When a Primary outbreak is added or modified, an e-mail is sent to subscribers.
- Member states can also send this declaration by email.

An Excel tool is available for huge number of outbreaks.
ADNS Functionality - Process Flow

ADNS allows the manager (EC) to add, modify, delete and restore any outbreak declaration.
ADNS Functionality – Break Down

1. **Search Engine Outbreak**(FORM2).
2. Create Outbreak(FORM1).
3. Update Outbreak(FORM2).
4. Delete Outbreak(s).
5. Restore Outbreak(s).
7. Weekly Notification (FORM4).
8. Administration.
1. Search Engine Outbreak

Home page
1. Search Engine Outbreak

Search engine outbreak

- Select the “Search Outbreak” SubMenu.
- Specify a search criteria by combining different field.
- Validate the “Search Outbreak” by clicking on the Search button.
- Displaying the result list
  - One or more Outbreak depending upon on the precision of the search.
- Export to Excel file.
- Select a specific outbreak from the result list.
- Displaying a header and details information for the selected outbreak.
- Printing outbreak declaration form.
1. Search Engine Outbreak.

- Select “Outbreak research” SubMenu
1. Search Engine Outbreak.

- Specify search criteria by combining different field.

- Validate a “Search Outbreak” by clicking on Search button.
1. Search Engine Outbreak.

- The system displays the result list.

<table>
<thead>
<tr>
<th>Country</th>
<th>Affected region</th>
<th>Disease</th>
<th>Reference number</th>
<th>Confirmation date</th>
</tr>
</thead>
<tbody>
<tr>
<td>NETHERLANDS 5</td>
<td>01600 SIXTEEN</td>
<td>C9 B.T. (BLuetongue)</td>
<td>2007 / 1</td>
<td>04/01/2007</td>
</tr>
<tr>
<td>NETHERLANDS 5</td>
<td>01100 ELEVEN</td>
<td>C9 B.T. (BLuetongue)</td>
<td>2007 / 2</td>
<td>09/01/2007</td>
</tr>
<tr>
<td>NETHERLANDS 5</td>
<td>02000 TWENTY</td>
<td>C9 B.T. (BLuetongue)</td>
<td>2007 / 3</td>
<td>09/01/2007</td>
</tr>
<tr>
<td>NETHERLANDS 5</td>
<td>01700 SEVENTEEN</td>
<td>C9 B.T. (BLuetongue)</td>
<td>2007 / 5</td>
<td>26/01/2007</td>
</tr>
<tr>
<td>NETHERLANDS 5</td>
<td>01100 ELEVEN</td>
<td>C9 B.T. (BLuetongue)</td>
<td>2007 / 6</td>
<td>06/02/2007</td>
</tr>
<tr>
<td>NETHERLANDS 5</td>
<td>01500 FIFTEEN</td>
<td>C9 B.T. (BLuetongue)</td>
<td>2007 / 7</td>
<td>01/03/2007</td>
</tr>
</tbody>
</table>

- You can either export this list to an Excel file, or select a specific outbreak by clicking on the record from the result list.
It lets you export the outbreak(s) related to the criteria search to Excel file.
1. Search Engine Outbreak.

- Select a specific outbreak by clicking on the record from the result list.

The system displaying:

1. Header which contains reference information for the selected outbreak.
1. Search Engine Outbreak.

2. Details information breaking down into 4 tabs:

- General information:
  - Control measure: MOVE CONTRL ✓
  - MOVE TRACING ✓
  - OTHER ✓
  - Disease origin: Unknown - investigation continuing ✓
  - Related outbreak: 
  - Location:
    - Latitude: North ✓ 50 49 53
    - Longitude: East ✓ 5 51 53
  - New measure
1. Search Engine Outbreak.

- Dates and animals:

<table>
<thead>
<tr>
<th>Disease's Evolution</th>
<th>Evolution type</th>
<th>Code</th>
<th>Validation rules</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suspicion date</td>
<td>130</td>
<td>07/10/2006</td>
<td></td>
</tr>
<tr>
<td>Date of confirmation</td>
<td>140</td>
<td>10/11/2005</td>
<td></td>
</tr>
<tr>
<td>Date of first infection</td>
<td>150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date culling of animals is finalised</td>
<td>160</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date destruction of animals is finalised</td>
<td>170</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. Search Engine Outbreak.

**Free text:**

Vector control measure
1. Search Engine Outbreak.

Related region:

<table>
<thead>
<tr>
<th>Country</th>
<th>Region</th>
<th>Delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>NETHERLANDS</td>
<td>EIGHT</td>
<td></td>
</tr>
<tr>
<td>NETHERLANDS</td>
<td>EIGHTEEN</td>
<td></td>
</tr>
</tbody>
</table>
Outbreak printing

- It lets you gather all information (header+4 tabs) for the selected outbreak in one single overview.
Select Outbreak then click on print button
ADNS Functionality – Break Down

1. Search Engine Outbreak (FORM2).
2. Create Outbreak (FORM1).
3. Update Outbreak (FORM2).
4. Delete Outbreak(s).
5. Restore Outbreak(s).
7. Weekly Notification (FORM4).
8. Administration.
2. Create Outbreak (FORM1)

- By Member State
- By Processing received e-mail every 30min
- It lets you create a new outbreak declaration and dispatch this new declaration to the Member States.
2. Create Outbreak (FORM1)

- Select “New Outbreak” SubMenu
- Complete a “New Outbreak” Form
  - Fill mandatory fields.
  - Fill optional fields.
- Validate a “New Outbreak” Form
- The system checks the matching field with the validation business rule.
- Displaying the result and dispatching this “New Outbreak”.

24/01/2008
2. Create Outbreak (FORM1)

- Select “New Outbreak” SubMenu
2. Create Outbreak (FORM1)

- Complete a “New Outbreak” Form
  - Fill mandatory fields (* symbol).
  - Fill optional fields.
2. Create Outbreak (FORM1)

- Complete a “New Outbreak” Form
  - General information tab.
2. Create Outbreak (FORM1)

### Disease's Evolution

<table>
<thead>
<tr>
<th>Evolution type</th>
<th>Code</th>
<th>Code Details</th>
<th>Validation rules</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suspicion date</td>
<td>130</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date of confirmation *</td>
<td>140</td>
<td>16/01/2008</td>
<td></td>
</tr>
<tr>
<td>Date of first infection</td>
<td>150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date culling of animals is finalised</td>
<td>160</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date destruction of animals is finalised</td>
<td>170</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Number of animals

<table>
<thead>
<tr>
<th>Status</th>
<th>Code</th>
<th>Code</th>
<th>Code</th>
<th>Code</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>All susceptible animals</td>
<td>13</td>
<td>(X)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of affected animals</td>
<td>14</td>
<td>(X)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of dead animals</td>
<td>15</td>
<td>(X)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of killed animals</td>
<td>16</td>
<td>(X)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of destroyed animals</td>
<td>17</td>
<td>(X)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

0 0 0 0
2. Create Outbreak (FORM1)

This is just a fiction for the test.

* Mandatory data
2. Create Outbreak (FORM1)

- Complete a “New Outbreak” Form
  ➢ Related region tab.
2. Create Outbreak (FORM1)

- Validate a “New Outbreak” form by clicking on the save button.
- The system checks and controls the matching field with the validation business rule.
  - A. In case of error the system indicates what is wrong and invites the user to correct its mistake.
  - B. If all fields are correct the system will validate and confirm this “New Outbreak” by:
    - a. Displaying a message
    - b. Dispatching this “New Outbreak” to member states.
2. Create Outbreak (FORM1)

B. If all fields are correct the system will validate and confirm this “New Outbreak” by:
   a. Displaying a message confirming the success of operation.
   b. Dispatching this new outbreak declaration to the Member States.

Outbreak created
Outbreak created with reference 2008 / 01
2. Create Outbreak (FORM1)

b. Dispatching this new outbreak declaration to member states.

Coded version e-mail

Subject: Primary disease notification '09 BLUETONGUE' in BELGIUM

101 16012008
102 1418
103 05
104 09
110 2008/01
112 00230
115 05/00210
117 1
120 23
121 42
140 16012008
999

This is just a fiction for the test.
2. Create Outbreak (FORM1)

b. Dispatching this new outbreak declaration to member states.

Decoded version e-mail

Subject: Primary disease notification '09 BLUETONGUE' in BELGIUM

Control measures 1 : 23
Control measures 10 : 42
Country of origin : 05
Date of confirmation of disease on holding (day/month/year) : 16012008
Date of dispatch (day/month/year) : 16012008
Disease : 09
End of coded section :

This is just a fiction for the test

If restrictions affect another country/region specify that country/region : 05/00210
Region affected : 00230
Serial number of outbreak (year/number) : 2008/01
Time of dispatch (24-hour clock) : 1410
Type of outbreak (primary '1' or secondary '2') : 1

24/01/2008
ADNS Functionality – Break Down

1. Search Engine Outbreak (FORM2).
2. Create Outbreak (FORM1).
3. Update Outbreak (FORM2).
4. Delete Outbreak(s).
5. Restore Outbreak(s).
7. Weekly Notification (FORM4).
8. Administration.
3. Update Outbreak (FORM2)

- By Manager.
- By Processing received e-mail every 30min
- It lets you update a declared outbreak and dispatch this modified declaration to member states.
3. Update Outbreak (FORM2)

- Select “Outbreak research” SubMenu
- Select outbreak to update from search engine outbreak (Presented before).
- Modify a “Update Outbreak” Form
  - Fill mandatory fields.
  - Fill optional fields.
- Validate a “Update Outbreak” Form
- Displaying the result and dispatching this
  “Update Outbreak”
3. Update Outbreak (FORM2)

• Select “Outbreak research” SubMenu
3. Update Outbreak (FORM2)

- Complete a “Update Outbreak” Form
  - Modify mandatory fields (* symbol).
  - Fill or modify optional fields.
3. Update Outbreak (FORM2)

- Validate a “Update Outbreak” form by clicking on the save button.
- The system checks and controls the matching field with the validation business rule.
  - A. In case of error the system indicates what is wrong and invites the user to correct its mistake.
  - B. If all fields are correct the system will validate and confirm this “Update Outbreak” by:
    - a. Displaying a message
    - b. Dispatching this “Update Outbreak” to member states.
3. Update Outbreak (FORM2)

B. If all fields are correct the system will validate and confirm this “New Outbreak” by:
   a. Displaying a message confirming the success of operation.
   b. Dispatching this new outbreak declaration to member states.
3. Update Outbreak (FORM2)

b. Dispatching this updated outbreak declaration to member states.

Subject: Modification of Primary disease '09 BLUETONGUE' in NETHERLANDS

<C>201<V>10102006
<C>202<V>1504
<C>203<V>C4
<C>204<V>C9
<C>205<V>5.86472222222222
<C>206<V>50.8313888888
<C>210<V>2006/173
<C>212<V>C2000
<C>215<V>04/C0800, 04/01300, 04/01100, 04/01500, 04/1
<C>217<V>1
<C>219<V>08
<C>220<V>50
<C>221<V>51
<C>230<V>C71C2006
<C>2310<V>111
<C>240<V>10102006
<C>2410<V>2
<C>999<V>

Vector control measure
3. Update Outbreak (FORM2)

b. Dispatching this updated outbreak declaration to Member states.

Subject: Modification of Primary disease '09 BLUETONGUE' in NETHERLANDS

Control measures 1 : 50
Control measures 10 : 51
Country of origin : 04
Date of confirmation of disease on holding (day/month/year) : 10/02/2006
Date of dispatch (day/month/year) : 10/02/2006
Date of suspicion of disease on holding (day/month/year) : 07/02/2006
Disease : 09
End of coded section : 

Vector control measure

If restrictions affect another country/region specify that
country/region : 04/00800,04/01800,04/01100,04/01500,04/00500,04/00400,
Latitude : 50.33136888889
Longitude : 5.86472222222
Number of animals clinically affected on holding cattle : 2
Number of susceptible animals on holding cattle : 111
Origin of disease : 08
Region affected : 020000
Serial number of outbreak (year/number) : 2006/173
Time of dispatch (24-hour clock) : 1504
Type of outbreak (primary '1' or secondary '2') : 1
ADNS Functionality – Break Down

1. Search Engine Outbreak (FORM2).
2. Create Outbreak (FORM1).
3. Update Outbreak (FORM2).
4. Delete Outbreak(s).
5. Restore Outbreak(s).
7. Weekly Notification (FORM4).
8. Administration.
4. Delete Outbreak(s)

- Select the Delete Outbreak SubMenu
- Select a search criteria
- Select outbreak(s), then click on the delete button
- Displaying the result and updating the outbreak list
Select Delete Outbreak SubMenu

Select "Delete outbreak" submenu from the Outbreak menu ...
Select Search Criteria

Select the criteria for your search...
Select outbreak(s) then click on delete button

<table>
<thead>
<tr>
<th>Country</th>
<th>Affected region</th>
<th>Disease</th>
<th>Reference number</th>
<th>Confirmation date</th>
<th>Delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>BELGIUM</td>
<td>00220 BRABANT WALLON</td>
<td>01 F.M.D. (Foot and mouth disease)</td>
<td>2007 / 26</td>
<td>21/11/2007</td>
<td></td>
</tr>
<tr>
<td>BELGIUM</td>
<td>00220 BRABANT WALLON</td>
<td>01 F.M.D. (Foot and mouth disease)</td>
<td>2007 / 31</td>
<td>21/11/2007</td>
<td></td>
</tr>
<tr>
<td>BELGIUM</td>
<td>00210 BRABANT FLAMAND</td>
<td>01 F.M.D. (Foot and mouth disease)</td>
<td>2007 / 32</td>
<td>28/11/2007</td>
<td></td>
</tr>
<tr>
<td>BELGIUM</td>
<td>00700 LIMBURG</td>
<td>01 F.M.D. (Foot and mouth disease)</td>
<td>2007 / 34</td>
<td>22/11/2007</td>
<td></td>
</tr>
<tr>
<td>BELGIUM</td>
<td>00210 BRABANT FLAMAND</td>
<td>01 F.M.D. (Foot and mouth disease)</td>
<td>2007 / 35</td>
<td>20/11/2007</td>
<td></td>
</tr>
<tr>
<td>BELGIUM</td>
<td>00400 EAST FLANDERS</td>
<td>01 F.M.D. (Foot and mouth disease)</td>
<td>2007 / 36</td>
<td>28/11/2007</td>
<td></td>
</tr>
<tr>
<td>BELGIUM</td>
<td>00220 BRABANT WALLON</td>
<td>01 F.M.D. (Foot and mouth disease)</td>
<td>2007 / 37</td>
<td>26/11/2007</td>
<td></td>
</tr>
<tr>
<td>BELGIUM</td>
<td>00220 BRABANT WALLON</td>
<td>01 F.M.D. (Foot and mouth disease)</td>
<td>2007 / 38</td>
<td>10/12/2007</td>
<td></td>
</tr>
</tbody>
</table>
Displaying the result and updating the outbreak list

- Outbreak reference 2007/26 for disease 01 in BELGIUM deleted
- Outbreak reference 2007/31 for disease 01 in BELGIUM deleted
- Outbreak reference 2007/32 for disease 01 in BELGIUM deleted
- Outbreak reference 2007/34 for disease 01 in BELGIUM deleted

It remains only 4 outbreaks in the list.
ADNS Functionality – Break Down

1. Search Engine Outbreak (FORM2).
2. Create Outbreak (FORM1).
3. Update Outbreak (FORM2).
4. Delete Outbreak(s).
5. Restore Outbreak(s).
7. Weekly Notification (FORM4).
8. Administration.
5. Restore Outbreak(s)

- Select Search Criteria
- Select outbreak(s) then click on restore button
- Displaying the result and updating the outbreak list
Select Search Criteria

Select the criteria for your search...
Select outbreak(s) then click on restore button

### Restore outbreak

<table>
<thead>
<tr>
<th>Country</th>
<th>Affected region</th>
<th>Disease</th>
<th>Reference number</th>
<th>Confirmation date</th>
<th>Restore</th>
</tr>
</thead>
<tbody>
<tr>
<td>BELGIUM</td>
<td>00220 BRABANT WALLON</td>
<td>O1 F.M.D. (Foot and mouth disease)</td>
<td>2007 / 26</td>
<td>21/11/2007</td>
<td></td>
</tr>
<tr>
<td>BELGIUM</td>
<td>00220 BRABANT WALLON</td>
<td>O1 F.M.D. (Foot and mouth disease)</td>
<td>2007 / 31</td>
<td>21/11/2007</td>
<td></td>
</tr>
<tr>
<td>BELGIUM</td>
<td>00210 BRABANT FLAMAND</td>
<td>O1 F.M.D. (Foot and mouth disease)</td>
<td>2007 / 32</td>
<td>28/11/2007</td>
<td></td>
</tr>
<tr>
<td>BELGIUM</td>
<td>00700 LIMBURG</td>
<td>O1 F.M.D. (Foot and mouth disease)</td>
<td>2007 / 34</td>
<td>22/11/2007</td>
<td></td>
</tr>
</tbody>
</table>
Displaying result and update the outbreak list

- Outbreak reference 2007/31 for disease 01 in BELGIUM restored
- Outbreak reference 2007/32 for disease 01 in BELGIUM restored

The system has restored 2 outbreaks.
ADNS Functionality – Break Down

1. Search Engine Outbreak (FORM2).
2. Create Outbreak (FORM1).
3. Update Outbreak (FORM2).
4. Delete Outbreak(s).
5. Restore Outbreak(s).
7. Weekly Notification (FORM4).
8. Administration.

For the next release, the system will enable you access to the BO reports.
ADNS Functionality – Break Down

1. Search Engine Outbreak (FORM2).
2. Create Outbreak (FORM1).
3. Update Outbreak (FORM2).
4. Delete Outbreak(s).
5. Restore Outbreak(s).
7. Weekly Notification (FORM4).
8. Administration.
7. Weekly Notification

1. The system sends a weekly overview report to the subscriber in the following format:

Subject: ADNS/SANCO/Year: 2008/Week: 4

********************************************************************************
From DG HCP (SANCO) E-2
ADNS FORM4

COMMISSION REFERENCE NUMBER: DG HCP (SANCO) / E2 / ADN4 / 22/01/2008/4

---------------------------------------------------------------------------------
401 : 22/01/2008
402 : 14:01
403 : 04
404 : 09
405 : 14/01/2008 11:06:07 to 22/01/2008 02:41:27
406 : :1 : 1 :
407 : 01200 : 0 : 1 :
407 : 01600 : 1 : 0 :
4410 : 24 : 1 : 1 : 1 : 13 :
4430 : 26 : 1 : 1 : 1 : 15 :

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24/01/2008
ADNS Functionality – Break Down

1. Search Engine Outbreak (FORM2).
2. Create Outbreak (FORM1).
3. Update Outbreak (FORM2).
4. Delete Outbreak(s).
5. Restore Outbreak(s).
7. Weekly Notification (FORM4).
8. Administration.
8 . Administration

- Only by Manager
- Reference table management
- Access management
ADNS new options

- Deleting several outbreaks in one operation
- Restoring several deleted outbreaks
- Adding GPS code
- Receiving decoded Email
- Web services
ADNS new options

Adding GPS code

- Format proposed:
  - XY (Longitude, Latitude) in WGS84, decimal degrees

- Receiving decoded Email
  - For those who would like this

- Web services
ADNS planning

- Release 1 : 02/2008
- Release 2 : 03/2008
- Release 3 : 05/2008
ADNS planning

Questions?