Fenno-Baltic-Russian project for Rabies control

Miia Jakava-Viljanen
Finnish Food Safety Authority
Evira
Rabies control

• Eradication and control of rabies needs a multi-disciplinary approach

• Eradication programmes should be implemented, if possible, in infected countries covering large areas and of sufficient duration (large scale, long-lasting)

• When different inconsistent strategies are implemented in the same area (in own country, in bordering countries) there is a risk of failure of rabies eradication programmes
Rabies control

• Epidemiologically different states can be considered as one region. The infection dynamics can be similar in these countries.

• Co-ordination of eradication and control strategies in country and among neighboring countries is needed.

• The collaboration on defined geographical areas should be further developed and extended.
Co-ordination of rabies strategies with neighbouring countries

A "Fenno-Baltic-Russian" approach for rabies eradication was proposed as a pilot project in Helsinki 2006

"Fenno-Baltic-Russian" project which includes Finland, Russia, in particular Kaliningrad region, Estonia, Latvia and Lithuania could be the first project on multinational basis

Other projects on other regions should follow
Co-ordination of rabies strategies with neighbouring countries

• Collaboration between authorities

• Expert body

• Vaccination teamwork

• Research activities, collaboration between scientists

• Funding and financing plan
Collaboration between authorities

- Regular near zone meetings: exchange of information and experience is important.
- Project planning
- Annual seminars
- Animal disease reporting system: regular monitoring of the rabies situation and changes
(EU) expert body (neutral)

• Cross-border exchange of expertise: expert body is needed to give advice!

• Advice on the methods to combat rabies using vaccination programmes which are based on epidemiological knowledge

• Harmonizing, advising and coordinating the methods used in monitoring of vaccination efficacy in order to have comparable data

• Analyzing the data and experiences obtained

• Continue having expert meetings and, if possible, offer training
Vaccination teamwork
(national / multinational)

• Vaccination programmes: size of the repeatedly vaccinated area, duration of programme

• Bait distribution: timing, method and number of baits

• Typing of virus strains from vaccination areas to distinguish field from vaccine strains

• Testing of baits: quality control of bait titres

• Follow-up of oral vaccine campaigns: bait uptake and seroconversion in adults and young
Research activities

• International collaboration between scientists
• Exchange of opinions
• Exchange of researchers
• Exchange of materials (virus strains, laboratory materials)
• Doctoral thesis
• International scientific meetings / conferences
• New scientific and technological knowledge for the prevention and detection of rabies
Funding and financing plan

• Funding for neighboring areas: Ministry

• EU funding

• Research financing: University, foundations, etc.
Finnish-Russian collaboration project

• FI-RU collaboration project on rabies control and research has been co-financed by the Ministry of Foreign Affairs in Finland in 1999-2008 and by European commission in 2003-2008

• The FI-RU collaboration in the field of rabies control and scientific research has been long and successful

• To vaccinate wild animals against rabies in the border areas of Finland and Russia in Karelia and Leningrad region

• To lower the presence of rabies in Karelia and Leningrad region by creation a vaccination zone

• To start a continuous rabies research project between Finland and Russia
Oral vaccination in Finland

• After 1989 no indigenous rabies cases have been found in Finland. The bait vaccination has been carried out in Finland every year since 1991 on the same area. Since 2004 vaccination campaigns are carried out biannually.

• Vaccination area: a 20–25 km wide and 250 km long zone along the south eastern border against Russia

• The infection pressure in wild carnivores in Russia and Baltic countries is, however, high and it poses a continuous risk for the reintroduction of the disease
Oral vaccination in Russia

• FI and RU have agreed to implement a joint vaccination programme of wild animals against rabies on the territory of the Russian federation along the border of Finland

• Vaccination on the Russian side of the border has been carried out once every year since 2003

• The objective is to maintain an adequate immunity in the wild raccoon dog and fox population in order to prevent rabies epidemics in Finland and to eradicate rabies from the Russian side of the border
Oral vaccination in Russia

• Rabies bait vaccines have been distributed in spring by local hunters in the Leningrad Region and in the Karelian Autonomous Republic

• 2003: Fuchsoral baits

• 2004-2008: Sinrab baits, manufactured by Federal Centre for Animal Health, Vladimir, Russia
Oral vaccination
Fenno-Baltic- Russia

Oral Immunisation of wild carnivores in Fenno-Baltic-Russian area 1988 - 2008

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Finland</td>
<td>1989</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Russian Federation</td>
<td>1998</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estonia</td>
<td>2005</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latvia</td>
<td>2005</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lithuania</td>
<td>2006</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kaliningrad</td>
<td>2007</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Oral vaccination
Missing information

Source of information:
OIE Reference laboratory for Rabies, Wusterhausen, Germany
Oral Immunisation of Foxes (OIF) Programmes (total area covered in 2007)
Summary

• “The Research and Prevention of rabies” -project started in 2000 as part of Finland’s cooperation with the neighbouring areas

• The purpose of the project is to vaccinate wild animals against rabies by means of vaccine baits in the areas neighbouring Finland and to continue the Finnish-Russian research cooperation in combating rabies
Summary

• A further objective is to introduce regular monitoring of the rabies situation in the Republic of Karelia and Leningrad Region

• The research programmes related to the project provide more information on the epidemiology of the disease and the rabies vaccines used in Russia
Summary

• Continuous co-ordination and co-operation is essential between neighboring countries

• There is strong need to have an expert body which could provide advice
Thank you for your attention!

Participants in the meeting on “Enhancing rabies eradication in the EU: international co-operation” in Helsinki 2006