



PROJECT TITLE	Biology and control of vector-borne infections in Europe
BRIEF DESCRIPTION	Future environmental and socio-economic changes, mean that emerging vector-borne diseases (VBD) will become an increasing challenge for human and veterinary public health in Europe. In a recent retrospective analysis the major risks of emerging infectious diseases were in southern countries, where many demographic, environmental, social and economic factors favour the emergence of VBD, and where there are limited health facilities to prevent, monitor or control their spread. Controlling VBD must therefore be considered as a global public good: European research into VBD should be seen as a means of protecting and improving public health and the welfare of its citizens, as well as being part of a coordinated international effort.
OBJECTIVES	Knowledge on vectors generated under this project is expected to deliver a better understanding of the biology of vectors relevant to human and veterinary diseases. This new knowledge in turn should help (i) to predict the emergence and spread of new vector-borne diseases, and (ii) to assess the efficacy of different interventions and develop new interventions to interrupt or limit the spread of vector-borne diseases with the goal of protecting European citizens from these threats. A major impact is also expected on strengthen the European research capacity in this field.
IMPLEMENTATION	<p>A general approach of understanding and explaining the biological, ecological and epidemiological processes will be adopted in order to develop a set of state-of-the-art methods and tools to improve prevention, surveillance and control of vector populations, and vector-borne Diseases (VBD). The EDENext project focus in explain and model the processes leading to the introduction, establishment, and spread of vectors and/or vector-borne diseases, and assess the possible control strategies to break the epidemiological cycles of vector-borne diseases. The project structure follows a set of vertical disease related activities linked by horizontal themes providing integrated technical input to all vertical groups, thereby minimising duplication and ensuring a coordinated approach throughout the project.</p> <p>The “vectors” addressed in the project rodents and insectivores as well as the main arthropod vector groups of human and animal diseases in Europe are: hard ticks (Acari, Ixodidae), mosquitoes (Diptera, Culicidae), sand flies (Diptera, Psychodidae), and biting midges (Diptera, Ceratopogonidae). Each constitutes “vertical” group structuring EDENext research activities. With such a vertical structure, the EDENext consortium will able to provide expertise and useful information regarding prevention of human or animal infection, control measures for vector populations, and implementation of vector surveillance</p>



	<p>networks, for any new emerging, VBD transmitted by vector / rodent / insectivore species belonging to these groups.</p> <p>To focus the project objectives and produce specific results regarding VBD in Europe, a range of relevant diseases was selected. The selection criteria used were (i) diseases with insufficient epidemiological knowledge or control measures to produce efficient intervention programmes, and (ii) priority diseases for European public-health agencies (e.g. Crimean-Congo haemorrhagic fever).</p>
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COORDINATOR INSTITUTION	Centre de Cooperation Internationale en Recherche Agronomique pour le Developpement
DURATION	2011-2015
PRINCIPAL INVESTIGATOR	Renaud Lancelot (CIRAD) Lenea Campino (GHTM/IHMT)
RESEARCH TEAM / INSTITUTION	<p>Centre de Cooperation Internationale en Recherche Agronomique pour le Developpement (CIRAD), France: Renaud Lancelot Instituto de Higiene e Medicina Tropical/Global Health and Tropical Medicine, (GHTM/IHMT) Portugal: Lenea Campino; Charles University in Pragues (CUNI), Czech Republik: Petr Volf; Istituto Superiore di Sanità (ISS), Italy: Luigi Gradoni; Institut de Recherche pour le Développement (IRD), France: Denis Sereno; National Centre for Disease Control (NCDC), Georgia: Ekaterina Giorgobiani; University of Crete (UoC), Greece: Maria Antoniou; Instituto de Salud Carlos III (ISCIII), Spain: Ricardo Molina; Hacettepe University, Faculty of Science (HUESRL), Turkey: Bulent Alten; Ege University Medical School (EUMS), Turkey: Yusuf Ozbek; Centre for Ecology and Hydrology (CEH), United Kingdom; Institut of Animal Health (IAH), United Kingdom; Institut Sénégalais de la Recherches Agricoles (ISRA), Senegal; Centre de Reserca en Sanitat Animal (CRESA), Spain; Danish Technical University (DTU), Denmark; Entente Inter-Départementale pour la Démoustication du littoral méditerranéen (EEID), France; Universitat de les Illes Balears (UIB), Spain; Institut Pasteur (IP), France; University of Veterinary Medicine Vienna (VETMEDUNI), Austria; Academy of Sciences of the Czech Republic (IVB), Czech Republic; Szent Istvan University, Faculty of Veterinary Science (SZIE), Hungary; The National Institute of Research and Development for Microbiology and Immunology "Cantacuzino" (NIRDMI), Romania; University of Rome "La Sapienza" (UNIROMA1), Italy; University of Zurich (UZH), Suisse;</p>



Institute of Public Health Albania (IPH), Albania;
Consejo Superior de Investigaciones Científicas (CSIC), Spain;
Agence Française de Sécurité Sanitaire de l'alimentation, l'environnement et du travail (AFSSA), France;
Danube Delta National Institute for Research (DDNI), Romania;
Finnish Forest Research Institute (METLA), Finland;
University of Antwerp (UA), Belgium;
Swedish Institute for Infectious Disease Control (SMI), Sweden;
Institut National de Recherche Agronomique (INRA), France;
Slovak Academy of Sciences (SAS), Slovakia;
Ludwig-Maximilians-Universitaet Muenchen (LMU), Germany;
Fundazione Edmund Mach (FEM), Italy;
Research Center Borstel (RCB), Germany;
Innovative Diagnostics VET (ID-VET), France;
Kafkas Universitesi (KAU), Turkey;
Friedrich Loeffler Institut (FLI), Germany;
Süddeutsches Institut für empirische Sozialforschung (SINE), Germany;
Robert Koch Institute (RKI), Germany;
University of Utrecht (FVM), Netherlands;
University of Oxford (UOXF), United Kingdom;
Université Catholique de Louvain (UCL), Belgium;
Université Libre de Bruxelles (ULB), Belgium;
European Agro-Environmental health GIS associates EEIG (EURO - AEGIS), Belgium;
University of Marseille, France;
Natural Resources Institute Finland (LUKE), Finland;
The Pirbright Institute, United Kingdom;
Uppsala University, Sweden;
Public Health Agency of Sweden, Sweden;
Institut de Recerca i Tecnologia Agroalimentaries, Spain;