



THEME [KBBE.2010.1.3-02]

[Promoting coordination and cooperation at international level of research programmes in the area of animal health, in particular infectious diseases including zoonoses - Mandatory ICPC (Latin America and Asia) - Call: FP7-KBBE-2010-4]

Grant agreement for: Coordination and support action

Annex I - "Description of Work"

Project acronym: STAR-IDAZ

Project full title: " Global Strategic Alliances for the Coordination of Research on the Major Infectious Diseases of Animals and Zoonoses "

Grant agreement no: 265919

Date of last change: 2011-04-28

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A1: Project summary

Project Number ¹	265919	Project Acronym ²	STAR-IDAZ
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One form per project

General information

Project title ³	Global Strategic Alliances for the Coordination of Research on the Major Infectious Diseases of Animals and Zoonoses		
Starting date ⁴	01/02/2011		
Duration in months ⁵	48		
Call (part) identifier ⁶	FP7-KBBE-2010-4		
Activity code(s) most relevant to your topic ⁷	KBBE.2010.1.3-02: Promoting coordination and cooperation at international level of research programmes in the area of animal health, in particular infectious diseases including zoonoses - Mandatory ICPC (Latin America and Asia) - Call: FP7-KBBE-2010-4		
Free keywords ⁸	Infectious diseases of animals; zoonoses, research coordination, animal health, global network		

Abstract ⁹

Animal diseases can cause serious social, economic and environmental damage and in some cases also threaten human health. An increasing number of the major disease problems or threats faced by the livestock industry and zoonoses are of a global nature. The overall aim of the global strategic alliances for the coordination of research on the major infectious diseases of animals is to improve coordination of research activities on the major infectious diseases of livestock and zoonoses so as to hasten the delivery of improved control methods. This will be achieved through the establishment of an international forum of R&D programme owners/managers and international organisations for the purpose of sharing information, improving collaboration on research activities and working towards common research agendas and coordinated research funding on the major animal diseases affecting livestock production and/or human health. It will build on the groundwork established by the SCAR collaborative working group on animal health and welfare research, the EMIDA ERA-NET project and specific INCO-NETs involving partner countries. The scope of the project will include co-ordination of research relevant to emerging and major infectious diseases of livestock, including fish and managed bees, and those infections of livestock that may carry the risk of disease threat to human health. Diseases of wildlife will also be considered where they are identified as reservoirs of infection with emerging and major infectious diseases of humans or production animals.

These objectives will be delivered through the following five workpackages: WP1. Project coordination, management, communication and dissemination; WP2. Sharing information on existing research programmes; WP3. Analysis of and responding to global, regional and industry sector priorities; WP4. Networking of ongoing research activities on major issues and WP5. Developing a strategic trans-national animal health research agendas.

A2: List of Beneficiaries

Project Number ¹	265919	Project Acronym ²	STAR-IDAZ
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List of Beneficiaries

No	Name	Short name	Country	Project entry month ¹⁰	Project exit month
1	THE SECRETARY OF STATE FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS	Defra	United Kingdom	1	48
2	Chinese Academy of Agricultural Sciences	CAAS	China (People's Republic of)	1	48
3	INSTITUT NATIONAL DE LA RECHERCHE AGRONOMIQUE	INRA	France	1	48
4	EMPRESA BRASILEIRA DE PESQUISA AGROPECUARIA	Embrapa	Brazil	1	48
5	FOUNDATION FOR RESEARCH SCIENCE AND TECHNOLOGY	FRST	New Zealand	1	48
6	Ministerio de Ciencia, Tecnología e Innovación Productiva	MINCYT	Argentina	1	48
7	UNITED STATES DEPARTMENT OF AGRICULTURE	USDA-ARS	United States	1	48
8	CONSEJO TECNICO CONSULTIVO NACIONAL DE SANIDAD ANIMAL	CONASA	Mexico	1	48
9	MINISTRY OF FOOD, AGRICULTURE AND FISHERIES, DANISH FOOD INDUSTRY AGENCY	DFIA	Denmark	1	48
10	FORSCHUNGSZENTRUM JUELICH GMBH	JÜLICH	Germany	1	48
11	CANADIAN FOOD INSPECTION AGENCY	CFIA	Canada	1	48
12	FEDERAL STATE EDUCATIONAL INSTITUTION OF HIGHER PROFESSIONAL EDUCATION MOSCOW STATE ACADEMY OF VETERINARY MEDICINE AND BIOTECHNOLOGIES NAMED AFTER K.I. SKRYABIN	MGAVM and B	Russian Federation	1	48
13	INTERNATIONAL CENTRE FOR INNOVATIONS IN SCIENCE, TECHNOLOGY AND EDUCATION	ICISTE	Russian Federation	1	48
14	MINISTERIE VAN ECONOMISCHE ZAKEN, LANDBOUW EN INNOVATIE	EL&I	Netherlands	1	48
15	MINISTERO DELLA SALUTE	DVPHNFS	Italy	1	48
16	INSTITUTO NACIONAL DE INVESTIGACION Y TECNOLOGIA AGRARIA Y ALIMENTARIA	INIA	Spain	1	48
17	Pfizer International Operations	PAH	France	1	48
18	DEPARTMENT OF AGRICULTURE, FISHERIES AND FORESTRY	AG DAFF	Australia	1	48

A2: List of Beneficiaries

No	Name	Short name	Country	Project entry month ¹⁰	Project exit month
19	MINISTRY OF SCIENCE AND TECHNOLOGY	DBT	India	1	48
20	MERIAL SAS	MAH	France	1	48
21	BIOTECHNOLOGY AND BIOLOGICAL SCIENCES RESEARCH COUNCIL	BBSRC	United Kingdom	1	48
22	INTERNATIONAL FEDERATION FOR ANIMAL HEALTH	IFAH	Belgium	1	48

A3: Budget Breakdown

Project Number ¹	265919	Project Acronym ²	STAR-IDAZ
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One Form per Project

Participant number in this project ¹¹	Participant short name	Fund. % ¹²	Ind. costs ¹³	Estimated eligible costs (whole duration of the project)				Total receipts	Requested EU contribution
				Coordination / Support (A)	Management (B)	Other (C)	Total A+B+C		
1	Defra	75.0	T	399,320.00	72,000.00	0.00	471,320.00	0.00	428,927.00
2	CAAS	75.0	F	50,718.00	0.00	0.00	50,718.00	0.00	50,718.00
3	INRA	75.0	T	158,520.00	0.00	0.00	158,520.00	0.00	141,347.00
4	Embrapa	75.0	T	52,440.00	0.00	0.00	52,440.00	0.00	46,759.00
5	FRST	75.0	T	12,840.00	0.00	0.00	12,840.00	0.00	11,449.00
6	MINCYT	75.0	F	12,840.00	0.00	0.00	12,840.00	0.00	11,449.00
7	USDA-ARS	75.0	T	44,040.00	0.00	0.00	44,040.00	0.00	39,269.00
8	CONASA	50.0	F	12,840.00	0.00	0.00	12,840.00	0.00	11,449.00
9	DFIA	75.0	A	37,022.00	0.00	0.00	37,022.00	0.00	37,022.00
10	JÜLICH	75.0	A	7,062.00	0.00	0.00	7,062.00	0.00	7,062.00
11	CFIA	75.0	F	12,840.00	0.00	0.00	12,840.00	0.00	11,449.00
12	MGAVM and B	75.0	F	11,449.00	0.00	0.00	11,449.00	0.00	11,449.00
13	ICISTE	75.0	F	39,269.00	0.00	0.00	39,269.00	0.00	39,269.00
14	EL&I	75.0	T	7,920.00	0.00	0.00	7,920.00	0.00	7,062.00
15	DVPHNFS	75.0	F	41,520.00	0.00	0.00	41,520.00	0.00	37,022.00
16	INIA	75.0	T	13,320.00	0.00	0.00	13,320.00	0.00	11,877.00
17	PAH	50.0	F	0.00	0.00	0.00	0.00	0.00	0.00
18	AG DAFF	75.0	T	53,640.00	0.00	0.00	53,640.00	0.00	47,829.00
19	DBT	75.0	F	0.00	0.00	0.00	0.00	0.00	0.00
20	MAH	50.0	A	0.00	0.00	0.00	0.00	0.00	0.00
21	BBSRC	75.0	F	53,520.00	0.00	0.00	53,520.00	0.00	47,722.00

A3: Budget Breakdown

Participant number in this project ¹¹	Participant short name	Fund. % ¹²	Ind. costs ¹³	Estimated eligible costs (whole duration of the project)				Total receipts	Requested EU contribution
				Coordination / Support (A)	Management (B)	Other (C)	Total A+B+C		
22	IFAH	50.0	S	0.00	0.00	0.00	0.00	0.00	0.00
Total				1,021,120.00	72,000.00	0.00	1,093,120.00	0.00	999,130.00

Note that the budget mentioned in this table is the total budget requested by the Beneficiary and associated Third Parties.

*** The following funding schemes are distinguished**

Collaborative Project (if a distinction is made in the call please state which type of Collaborative project is referred to: (i) Small of medium-scale focused research project, (ii) Large-scale integrating project, (iii) Project targeted to special groups such as SMEs and other smaller actors), Network of Excellence, Coordination Action, Support Action.

1. Project number

The project number has been assigned by the Commission as the unique identifier for your project, and it cannot be changed. The project number **should appear on each page of the grant agreement preparation documents** to prevent errors during its handling.

2. Project acronym

Use the project acronym as indicated in the submitted proposal. It cannot be changed, unless agreed during the negotiations. The same acronym **should appear on each page of the grant agreement preparation documents** to prevent errors during its handling.

3. Project title

Use the title (preferably no longer than 200 characters) as indicated in the submitted proposal. Minor corrections are possible if agreed during the preparation of the grant agreement.

4. Starting date

Unless a specific (fixed) starting date is duly justified and agreed upon during the preparation of the Grant Agreement, the project will start on the first day of the month following the entry into force of the Grant Agreement (NB : entry into force = signature by the Commission). Please note that if a fixed starting date is used, you will be required to provide a detailed justification on a separate note.

5. Duration

Insert the duration of the project in full months.

6. Call (part) identifier

The Call (part) identifier is the reference number given in the call or part of the call you were addressing, as indicated in the publication of the call in the Official Journal of the European Union. You have to use the identifier given by the Commission in the letter inviting to prepare the grant agreement.

7. Activity code

Select the activity code from the drop-down menu.

8. Free keywords

Use the free keywords from your original proposal; changes and additions are possible.

9. Abstract

10. The month at which the participant joined the consortium, month 1 marking the start date of the project, and all other start dates being relative to this start date.

11. The number allocated by the Consortium to the participant for this project.

12. Include the funding % for RTD/Innovation – either 50% or 75%

13. Indirect cost model

A: Actual Costs

S: Actual Costs Simplified Method

T: Transitional Flat rate

F :Flat Rate

Workplan Tables

Project number

265919

Project title

STAR-IDAZ—Global Strategic Alliances for the Coordination of Research on the Major Infectious Diseases of Animals and Zoonoses

Call (part) identifier

FP7-KBBE-2010-4

Funding scheme

Coordination and support action

WT1

List of work packages

Project Number ¹	265919	Project Acronym ²	STAR-IDAZ
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LIST OF WORK PACKAGES (WP)

WP Number ⁵³	WP Title	Type of activity ⁵⁴	Lead beneficiary number ⁵⁵	Person-months ⁵⁶	Start month ⁵⁷	End month ⁵⁸
WP 1	Project coordination, management, communication & dissemination	COORD	1	65.75	1	48
WP 2	Sharing information on existing research programmes	COORD	3	103.50	1	48
WP 3	Analysis of and responding to global, regional and industry sector priorities	COORD	9	61.00	1	48
WP 4	Networking of ongoing research activities on major animal health issues	COORD	21	43.50	1	48
WP 5	Developing strategic trans-national animal health research agendas	COORD	15	54.50	1	48
Total				328.25		

WT2: List of Deliverables

Project Number ¹	265919	Project Acronym ²	STAR-IDAZ
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List of Deliverables - to be submitted for review to EC

Deliverable Number ⁶¹	Deliverable Title	WP number ⁵³	Lead beneficiary number	Estimated indicative person-months	Nature ⁶²	Dissemination level ⁶³	Delivery date ⁶⁴
D1.1	First Interim project report	1	1	1.00	R	PP	18
D1.2	Second Interim project report	1	1	1.00	R	PP	36
D1.3	Memorandum of Understanding and Modus Operandi	1	1	1.00	R	PU	36
D1.4	Final Project Report	1	1	3.00	R	PU	48
D2.1	First report on Information Portal data	2	3	8.00	R	PU	10
D2.2	Second report on Information Portal data	2	3	8.00	R	PU	22
D2.3	Final report on mapped information at the global level	2	3	6.00	R	PU	30
D3.1	Research needs at global, regional and industry sector levels	3	9	2.00	R	PP	18
D3.2	Agendas on target priority diseases and issues	3	9	6.00	R	PU	40
D4.1	Instruments to enable cooperation, clustering and partnerships	4	21	1.00	R	PU	24
D5.1	Terms of reference for the expanded FPU	5	15	1.00	O	PP	6
D5.2	Strategic Research Agenda and Action Plan	5	15	3.00	R	PU	45
Total				41.00			

WT3: Work package description

Project Number ¹	265919	Project Acronym ²	STAR-IDAZ
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One form per Work Package

Work package number ⁵³	WP1	Type of activity ⁵⁴	COORD
Work package title	Project coordination, management, communication & dissemination		
Start month	1		
End month	48		
Lead beneficiary number ⁵⁵	1		

Objectives

- To manage and co-ordinate the global network on animal health research.
- To administer the project.
- To support the other work packages in the coordination of activities and the provision of admin support.
- To manage the sharing/dissemination of project outputs within the network and for the wider benefit of other non-participating animal health research funders and stakeholders, including the provision of a website and other dissemination fora.
- To develop durable mechanisms for the longer-term co-ordination of global research efforts on the major disease threats to livestock production and zoonotic conditions.

Description of work and role of partners

This Work-Package will underpin building and coordinating a coherent network of organisations in the animal health research area that will deliver a trans-national vision for collaborative and coordinated research. The proposed project is organised in a step-wise process starting with information gathering and analysis (WP2), then analysis and agreement on global, regional and industry sector research priorities, including coordination of research procurement on priority topics (WP3), networking of ongoing research activities including the twinning of research projects (WP4) and finally the establishment of a long-term vision with a common agenda based on shared priorities (WP5). In collaboration with WP5 a structure for long-term collaboration will be developed.

The Global Network will be managed in the following way, as detailed in Section B2.1 (Management Structure and Procedures):

The Network Consortium: this group, comprising the project partners, with the advice of the Associated Partners, will be responsible for deciding the Network's strategic direction, agreeing proposed activities, reviewing the progress of the Network, and reviewing and endorsing specific outputs.

The Network Management Board (NMB): this will include the coordinator and the Leaders and Deputy Leaders of the various work-package and will take responsibility for progress and delivery of the work-packages.

Specific tasks within this work-package are:

1.1 Network Development

- Identify and invite strategically important research funders and stakeholder organisations not involved in the project, to join the network as full or associated partners or members of the appropriate regional network.
- Liaise with the relevant INCO-Nets in establishing trans-national activities.
- Identify existing regional structures that would facilitate the development of the regional networks.

1.2 Meetings:

- An inaugural meeting involving all partners will be convened within 6 months of the project start date.
- Partners will meet once a year (Months 6, 18, 30 and 45) to plan activities, report and review progress and take forward tasks within each individual work-package. The tasks within each work-package that need meetings/workshops between partners will, where possible, be scheduled to coincide with these annual meetings to make most effective use of resources.
- Three additional regional meetings will be organised (Months 14, 24 and 36) for partners in two regions – the Americas and Asia and Australasia.

WT3: Work package description

- The Network Management Board (NMB) will meet around the time of the main annual project meetings, with additional meeting conducted electronically or by teleconferences.
- A final Project Consultation Meeting and Dissemination Conference (Month 45) for national research funders, research providers, policy makers and other interested parties will be held at the end of the project.

1.3 Reports:

- Produce Project reports (Months 18, 36 and 48) and deliverable reports for the Commission. These will be coordinated and submitted by the Coordinator who will also act as the main liaison point with the Commission.
- Collate regular Work-Package summary reports (6-monthly). These will be submitted to the Coordinator by the work-package leaders for internal project management purposes. Short (2- 3-page) 6-monthly interim highlight reports will be produced and submitted by the Coordinator (as required) to the Commission.

1.4 Knowledge Management and Communication:

- A project website, with password-protected discussion forum, and links to the CWG databases of research activities and outputs will be developed. This will be used for sharing ideas, seeking advice from fellow members, for internal management purposes and for external communication and dissemination activities.
- Adapt and expand the CWG databases to include specific needs of the project and maintain these throughout the period of the project.
- Develop terms and conditions relating to data- sharing
- Develop an external communications and dissemination strategy that will include identifying (e.g. from WP2) non-participating national programme managers and research providers who should be the targets of specific communication and dissemination activities. A database of all these, both national and international, will be compiled and maintained in WP2.
- Prepare (bi-annually) e-newsletters and send to interested parties.
- Invite relevant interested parties and observers to attend specific meetings, including the Final Project Dissemination Conference where the project outputs will be presented (including the proposed strategic research agenda).
- Establish the Network as a key interface for the OIE, FAO and other global bodies.

1.5 Project Administration:

- Coordinate and manage all technical and contract management components of the project including: financial; legal; contractual; knowledge management; intellectual property rights.
- Produce a consortium agreement.
- Support the other work packages in the coordination of activities, including the provision of admin support.

1.6 Capacity building and consolidation of the global network in the development and maintenance of trans-national coordination and collaboration of animal health research – developed in consultation with Work-Package 5:

- Assess possibility to establish a research policy capacity development programme across consortium (Month 12) . Provide an online portal to relevant development material (Month 12) and subject to need, arrange for at least one Open Method of Coordination (OMC) related expert training session to be held during the annual conference in Month 18 and as needed in subsequent years
- The network of animal health research funders in the global network will be responsible for the development, implementation and repeated (e.g. biennial) revision of trans-national agendas and programmes on select topics and determining annual trans-national animal health research collaborations. A Modus Operandi and Memorandum of Understanding will be developed, under which the network will function beyond the end of the project. This will formalise issues of: membership and leadership; governance and decision making frameworks; mechanisms for managing joint activities; ownership and management of Intellectual Property Rights, arrangements for dissemination, exploitation and technological implementation; duration and review procedures; finance; and long-term maintenance of the project website to enable continuing collation and analysis of national programmes to inform trans-national activities and programmes. Regional funders networks will be established and focused on priority diseases and issues to facilitate a more durable system and integrate the regional dimension into the global context in a sustainable way.

Person-Months per Participant

Participant number ¹⁰	Participant short name ¹¹	Person-months per participant
1	Defra	40.00

WT3: Work package description

Person-Months per Participant

Participant number ¹⁰	Participant short name ¹¹	Person-months per participant
2	CAAS	4.00
3	INRA	1.00
4	Embrapa	2.00
5	FRST	1.00
6	MINCYT	1.00
7	USDA-ARS	1.00
8	CONASA	1.00
9	DFIA	1.00
10	JÜLICH	0.75
11	CFIA	1.00
12	MGAVM and B	1.00
13	ICISTE	1.00
14	EL&I	1.00
15	DVPHNFS	1.00
16	INIA	1.00
17	PAH	1.00
18	AG DAFF	2.00
19	DBT	1.00
20	MAH	1.00
21	BBSRC	1.00
22	IFAH	1.00
Total		65.75

List of deliverables

Deliverable Number ⁶¹	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature ⁶²	Dissemination level ⁶³	Delivery date ⁶⁴
D1.1	First Interim project report	1	1.00	R	PP	18
D1.2	Second Interim project report	1	1.00	R	PP	36
D1.3	Memorandum of Understanding and Modus Operandi	1	1.00	R	PU	36
D1.4	Final Project Report	1	3.00	R	PU	48
Total			6.00			

Description of deliverables

WT3: Work package description

D1.1) First Interim project report: Project reports and cost statements prepared and submitted to the Commission [month 18]

D1.2) Second Interim project report: [month 36]

D1.3) Memorandum of Understanding and Modus Operandi: Modus operandi and Memorandum of Understanding governing long-term collaboration activities formalised [month 36]

D1.4) Final Project Report: [month 48]

Schedule of relevant Milestones

Milestone number ⁵⁹	Milestone name	Lead beneficiary number	Delivery date from Annex I ⁶⁰	Comments
MS1	Consortium agreement including data-sharing policy	1	6	Agreed documents - a consortium agreement outlining operational procedures of the network and an agreed data sharing policy
MS2	Relevant INCO-Nets identified	1	6	List of INCO-NETs
MS3	Kick-off meeting	1	6	Minutes produced
MS4	Project website and discussion forum	1	6	Web site accessible - Project website with links to the Collaborative Working Group on Animal Health and Welfare research and Partner databases and with restricted areas for Partners
MS5	Communication and Dissemination Strategy	1	6	External Communication and Dissemination Strategy produced, including database of interested parties for dissemination of activities

WT3: Work package description

Project Number ¹	265919	Project Acronym ²	STAR-IDAZ
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One form per Work Package

Work package number ⁵³	WP2	Type of activity ⁵⁴	COORD
Work package title	Sharing information on existing research programmes		
Start month	1		
End month	48		
Lead beneficiary number ⁵⁵	3		

Objectives

- To extend the systems already established by the EMIDA project for systematic gathering of information on existing national and international funded Animal Health research programmes,
- To map major operators managing these programmes and major experimental infrastructures, any existing linkages between regional and international research programmes (bilateral and multilateral). This will include identification of research programmes targeted at specific diseases.
- To organize and synthesize the gathered information in order to provide reliable indicators helping to identify overlaps, gaps and to identify areas where there are opportunities for development of common research priorities and linking of ongoing research activities in target priority diseases

Description of work and role of partners

This Work-package aims to build on the work initiated by the CWG and developed further by EMIDA in gathering information on national and EU funded research programmes by extending it to include the activities of the global project partners. This sharing of information will foster and encourage a spirit of trust and openness. It will form the basis for future cooperation and collaboration with the eventual aim of establishing trans-national animal health research agendas based on shared views and priorities which will result in a concrete programme to be taken forward by the Project Partners. Information will also be gathered to determine how programmes are managed and coordinated at the national level. This will allow the development of trans-national collaboration on shared future research plans, including synchronised calls. The information will also help identify areas where existing projects would benefit from being linked together.

Work- Package 2 will also collate and analyse the information obtained, since mapping and analysis tasks are closely allied and inter-linked. It will analyse data on national funded programmes and projects and the recent outputs of these with a view to provide reliable indicators to be used for any expert analysis on complementarities, gaps & opportunities, for decision-making on linking activities, and for foresight analyses. This analysis will form the basis for developing coordinated activities (WP4) and strategic research programmes in Work-Packages 3 and 5.

Specific tasks in this work-package will involve:

2.1 Define specific information to be gathered/mapped. This is likely to include:

- Programme information : major currently active programmes of partners and their integration in the overall architecture of national animal health research (programming, funding, management), major specific infrastructures, potential barriers to trans-national collaboration.
- Currently active research programmes as identified by a survey of recent indicators of science and technology production : identification of actively involved S&T operators by thematic fields, collaborations and major trends of scientific production by participating countries.

Existing linkages and collaboration: map and analyse any pre-existing collaboration and coordination at the regional/national levels and international levels.

2.2 Prepare for data collection and collect data/information: including the following sub-tasks:

WT3: Work package description

- Identify precisely the type of data to collect, from project partners, relating to (i) information on national programmes , (ii) overall architecture of national animal health research, (iii) major experimental infrastructures, (iv) major international research links.
- Prepare a questionnaire to be filled by the partners of the project to collect the above information
- Design and conduct a web survey on major managers of research in Animal Health in partner countries to collect complementary information on priority programmes and organization.
- Design a specific internet-based information portal where the above information will be presented for improved data sharing between current and potential partners.
- Revise the design and information content of the on-going databases aimed at mapping research organizations and their topics according to their recent research output (publications and patents) and expand it to the new partner countries.
- Integrate above information portal and databases in a internet-based research mapping platform integrated to the project website.
- Continued low level updates of information annually.

2.3 Analysis of information:

This will be done at both a general level and also for specific livestock sectors, disease categories, and disciplines:

- Synthesize and analysis of the mapped information, focusing on major programme priorities, differences and complementarities between countries and regions, existing and potential networks of collaboration
- Propose original indicators of science in the field of animal infectious diseases based on the analysis of gathered information, with a view (i) to provide a common base of analysis and therefore facilitate exchange between partners, (ii) to facilitate collective expertise on strengths, gaps, opportunities and threats, and (iii) to support any evidence-based decision between partners, especially for the development of common activities. These instruments will be developed in WP3 for use in collaborative activities.

Person-Months per Participant

Participant number ¹⁰	Participant short name ¹¹	Person-months per participant
1	Defra	6.00
2	CAAS	8.00
3	INRA	48.00
4	Embrapa	12.00
5	FRST	1.00
6	MINCYT	1.00
7	USDA-ARS	1.00
8	CONASA	3.00
9	DFIA	1.00
10	JÜLICH	0.50
11	CFIA	1.00
12	MGAVM and B	7.00
13	ICISTE	5.00
14	EL&I	1.00
15	DVPHNFS	1.00

WT3: Work package description

Person-Months per Participant

Participant number ¹⁰	Participant short name ¹¹	Person-months per participant
16	INIA	1.00
17	PAH	1.00
18	AG DAFF	1.00
19	DBT	1.00
20	MAH	1.00
21	BBSRC	1.00
22	IFAH	1.00
Total		103.50

List of deliverables

Deliverable Number ⁶¹	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature ⁶²	Dissemination level ⁶³	Delivery date ⁶⁴
D2.1	First report on Information Portal data	3	8.00	R	PU	10
D2.2	Second report on Information Portal data	3	8.00	R	PU	22
D2.3	Final report on mapped information at the global level	3	6.00	R	PU	30
Total			22.00			

Description of deliverables

D2.1) First report on Information Portal data: First report on mapped information collected through Information Portal [month 10]

D2.2) Second report on Information Portal data: Second report on mapped information collected through Information Portal [month 22]

D2.3) Final report on mapped information at the global level: Final reporting on mapped information at the global level, (i) focusing on existing collaborations and networks between the EU and the rest of the world, and (ii) proposing indicators of research mapping to support any evidence-based decision regarding programme development and funding [month 30]

Schedule of relevant Milestones

Milestone number ⁵⁹	Milestone name	Lead beneficiary number	Delivery date from Annex I ⁶⁰	Comments
MS6	Proposition for the design of information portal on national programmes	3	2	Draft proposal & demonstration submitted to consortium
MS7	Proposal for the architecture and functionalities of research output database	3	2	Draft proposal

WT3: Work package description

Schedule of relevant Milestones

Milestone number ⁵⁹	Milestone name	Lead beneficiary number	Delivery date from Annex I ⁶⁰	Comments
MS8	Operational information portal	3	4	An Information portal on current national programmes and overall organisation of animal health research in partner countries.
MS9	Web interface of database	3	4	Draft proposition & demonstration submitted to consortium
MS10	Relational database	3	6	A relational (access) database of bibliometrical and webometrical information sources and its web-based search interface for external users to map main research organisations in partner countries
MS11	Draft publication on collaboration networks	3	10	Report submitted to WP2 participants
MS12	First report on mapped information collected through information portal	3	10	Report
MS13	Research output database assembled/populated	3	12	Announcement
MS14	Report on international research collaboration networks	3	12	Report on international research collaboration networks
MS15	Draft report on mapping indicators	3	18	Report submitted to WP2 participants
MS16	Report on indicators of programme mapping	3	20	Report on the use of the research mapping indicators and other bibliometric indicators produced within the project in the designing of future research programmes following group discussion.
MS17	Second report on mapped information collected through information portal	3	22	Report
MS18	Research output database: end of second round of updating	3	24	Announcement

WT3: Work package description

Project Number ¹	265919	Project Acronym ²	STAR-IDAZ
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One form per Work Package

Work package number ⁵³	WP3	Type of activity ⁵⁴	COORD
Work package title	Analysis of and responding to global, regional and industry sector priorities		
Start month	1		
End month	48		
Lead beneficiary number ⁵⁵	9		

Objectives

- To establish the priorities for evidence and research needs of partners over the next 2-5 years taking into account the probability for global/regional spread and economic impact of particular diseases, using OIE reports and the outputs of the EMIDA and DISCONTTOOLS projects. An agreed topology of issues that might form the basis of a priority action list for future coordination will be developed. This to be based upon a matrix of issues approach, for example:
 1. 'Safe Trade': diseases and risks associated with trade in livestock – regulated and non-regulated trade. Taking into account national, regional and global contexts;
 2. Disease categories(including zoonotics): Viral, bacterial, parasitic and other (e.g. prion) diseases – taking into account a livestock sector approach.
- To identify where cooperation and common research requirements might add value to existing activities taking into account the outputs of WP2, including identified emerging needs, and where possible to coordinate actions including the development of topics suitable for joint coordinated/research calls.
- To build a common research agenda on target priority diseases and issues.
- To agree on at least one topic/issue that will form the basis of a coordinated call during the lifetime of the project

Description of work and role of partners

- 3.1 Identify Research Requirements and areas for possible collaboration
- An inventory of existing needs/gaps (national/regional research needs for short – mid term priorities (2 – 5 year horizon)) will be developed; Adapt EMIDA/CWG database to include data on pipeline programmes; lists of research providers and their skills/expertise will be established (from WP 2). Incorporate and validate the DISCONTTOOLS prioritisation methodology.
 - Collate and analyse information obtained from the Inventory of existing needs/gaps to identify key areas (diseases and issues) for cooperation, collaboration and coordination (regional/national/zonal/livestock sectoral research needs, priorities, gaps and opportunities - taking into account any trade issues relating to Disease risks).
 - Follow-up data on animal disease surveillance communicated through internet-based early warning systems, such as those designed by FAO, OIE, International Society for Infectious Diseases (ProMed), ECDC (Eurosurveillance), Center for Disease Control ; infer major trends and potential priority topics to consider for collaborative actions over the time horizon.
 - Information gaps on priority diseases will be identified where possible through the DISCONTTOOLS project outputs and OIE reports and considered in relation to current research efforts.
 - All inputs will be mapped to create a priorities matrix.
- 3.2 Develop Research Requirements and launch pilot coordinated research Initiative
- Agree on specific diseases and research areas for collaborative actions, based on planned and pipeline research programmes, R&D short-term horizon priorities and availability of funding for joint Actions based on national situations, International funds and from other stakeholders (e.g. specific INCO platforms) It is expected that any agreement to collaborate will be based on an 'à la carte' (programme by programme) arrangement between partners in the project

WT3: Work package description

Person-Months per Participant

Participant number ¹⁰	Participant short name ¹¹	Person-months per participant
1	Defra	6.00
2	CAAS	8.00
4	Embrapa	12.00
7	USDA-ARS	4.00
8	CONASA	4.00
9	DFIA	4.00
12	MGAVM and B	9.00
13	ICISTE	5.00
16	INIA	3.00
17	PAH	3.00
20	MAH	3.00
Total		61.00

List of deliverables

Deliverable Number ⁶¹	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature ⁶²	Dissemination level ⁶³	Delivery date ⁶⁴
D3.1	Research needs at global, regional and industry sector levels	9	2.00	R	PP	18
D3.2	Agendas on target priority diseases and issues	9	6.00	R	PU	40
Total			8.00			

Description of deliverables

D3.1) Research needs at global, regional and industry sector levels: Report on identified research needs at global, regional and industry sector levels [month 18]

D3.2) Agendas on target priority diseases and issues: Report on common research agendas for target priority diseases and issues [month 40]

Schedule of relevant Milestones

Milestone number ⁵⁹	Milestone name	Lead beneficiary number	Delivery date from Annex I ⁶⁰	Comments
MS19	National research needs and priorities for next 2-5 years	9	10	National research needs and priorities for next 2-5 years and International priorities and trends identified

WT3: Work package description

Schedule of relevant Milestones

Milestone number ⁵⁹	Milestone name	Lead beneficiary number	Delivery date from Annex I ⁶⁰	Comments
MS20	Priority diseases identified	9	12	List of diseases identified and available on project website
MS21	Research needs for priority diseases established	9	12	List of research needs identified and available on project website
MS22	Research needs for collaborative actions established	9	18	List made available on project web site
MS23	Agree topics for collaborative actions	9	24	List available on project web site
MS24	Mechanisms for collaborative/joint actions identified	9	24	List available on project web site
MS25	Topics for possible joint/coordinated calls	9	33	Identify and describe at least one topic for possible joint/coordinated call

WT3: Work package description

Project Number ¹	265919	Project Acronym ²	STAR-IDAZ
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One form per Work Package

Work package number ⁵³	WP4	Type of activity ⁵⁴	COORD
Work package title	Networking of ongoing research activities on major animal health issues		
Start month	1		
End month	48		
Lead beneficiary number ⁵⁵	21		

Objectives

- To identify the most suitable mechanisms for improving cooperation on existing research programmes on infectious and zoonotic diseases.
- To identify, in cooperation with national programme owners, regional agencies, researchers and existing research platforms (e.g. INCO nets), bottlenecks preventing linkage of research programmes, and to make recommendations to overcome these.
- To identify opportunities for networking and coordination between existing (trans)national research programmes, which focus on priority infectious and zoonotic diseases (identified by WP2),
- To facilitate the establishment of networks/partnerships on priority diseases
- To identify and communicate funding mechanisms to enable common participation of researchers from EMIDA countries and global partners in various scientific programmes (FP&, national and international programmes).

Description of work and role of partners

Task 4.1

Relevant initiatives ((trans) national programmes, ERA-Nets, INCO-Nets such as New Indigo or Co-Reach) and their owners will be contacted to explore common interests and the potential for cooperation. Options for networking or establishing research partnership will be explored and bottlenecks preventing transnational cooperation will be identified.

Recommendations will be made for improved cooperation, on priority diseases and issues (identified in WP3), between the programmes, their funders, their owners and researchers.

Task 4.2

Complementary ongoing research programmes linked to priority topics (identified in WP3), will be identified in WP2. Where potential synergies between programmes are identified or where significant added-value and improved quality of research outputs might be obtained the establishment of collaborative networks will be facilitated using the Global FMD Research Alliance(GFRA) as a model for such coordination.

If required dedicated networking (partnering) activities on topics, e.g. meetings during relevant scientific conferences, will be organised for the specific research communities.

On the level of research, activities such as access to specialist facilities, exchange of personnel, and training in advanced techniques will be promoted where possible through relevant INCO-Nets. On the level of programme management an exchange of personnel will be fostered.

Task 4.3

Sources of funding will be identified (e.g. mobility grants, initiation grants) for researchers from EMIDA Partners and their global counterparts to allow closer networking. Based on the outcome/success of the partnering measure (Task 4.2) an appropriate call for "twinning" activities (focussing on new activities, but also including ongoing activities) will be organised.

Person-Months per Participant

Participant number ¹⁰	Participant short name ¹¹	Person-months per participant
1	Defra	6.00

WT3: Work package description

Person-Months per Participant

Participant number ¹⁰	Participant short name ¹¹	Person-months per participant
2	CAAS	8.00
4	Embrapa	6.00
5	FRST	1.00
7	USDA-ARS	1.00
8	CONASA	4.00
12	MGAVM and B	6.50
13	ICISTE	4.00
16	INIA	3.00
21	BBSRC	4.00
Total		43.50

List of deliverables

Deliverable Number ⁶¹	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature ⁶²	Dissemination level ⁶³	Delivery date ⁶⁴
D4.1	Instruments to enable cooperation, clustering and partnerships	21	1.00	R	PU	24
Total			1.00			

Description of deliverables

D4.1) Instruments to enable cooperation, clustering and partnerships: Recommendations to programme funders (and other stakeholders) on instruments to enable cooperation, clustering of and partnerships between programmes in selected priority areas, including any extension activity and associated budgets [month 24]

Schedule of relevant Milestones

Milestone number ⁵⁹	Milestone name	Lead beneficiary number	Delivery date from Annex I ⁶⁰	Comments
MS26	Networking Options	21	12	Recommendations on the most suitable option for networking existing research activities, including the identification of bottlenecks preventing/hindering cooperation.
MS27	Potential networking opportunities on priority diseases identified	21	18	Report prepared for the network partners

WT3: Work package description

Schedule of relevant Milestones

Milestone number ⁵⁹	Milestone name	Lead beneficiary number	Delivery date from Annex I ⁶⁰	Comments
MS28	Suitable instruments to deepen transnational collaboration	21	24	Internal report identifying instruments to deepen transnational collaboration.
MS29	Research partnerships	21	48	Research networks/partnerships established in selected priority areas over the period from Month 24-48.
MS30	Research partnerships ready to submit proposals for common scientific work	21	36	Sets of potential research partnerships ready to submit proposals for common scientific work to funding bodies of choice

WT3: Work package description

Project Number ¹	265919	Project Acronym ²	STAR-IDAZ
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One form per Work Package

Work package number ⁵³	WP5	Type of activity ⁵⁴	COORD
Work package title	Developing strategic trans-national animal health research agendas		
Start month	1		
End month	48		
Lead beneficiary number ⁵⁵	15		

Objectives

- To extend the EMIDA/SCAR Foresight synthesis exercise to identify strategic (including infrastructure and expertise) and innovative requirements for global animal disease research and to develop criteria for priority setting and subsequently develop a common longer-term (5 - 15 years) strategic research agenda, based on agreed priorities.
- To develop a database of key experts for foresight exercises across the globe.

Description of work and role of partners

This work-package is a key component of building the global network into a forward-looking coherent structure of national animal health research funders capable of cross-programme collaboration that will better serve in terms of (human and financial) resources the research needs of the Livestock industries and animal health policy makers. It draws upon all the previous work-packages. It will determine the longer-term strategic requirements and establish a common agenda for research on particular topics and a concrete action plan for collaboration and joint trans-national research activities. To facilitate implementation of the action plan, a sound foundation for a coherent management framework will be established by developing, in collaboration with WP1, a Memorandum of Understanding between the parties detailing the Network's vision and modus operandi.

5.1 To build on the activities of the EMIDA Foresight & Programming Unit by extending its remit to consider global and regional needs

- using the terms of reference of the SCAR CWG Foresight & Programming Unit (FPU) as a starting point, a 'Global FPU' terms of reference will be established for the expanded group. The unit's remit will include an analysis of the relevance to the global network of the outputs of the EMIDA FPU which included::
 - o The inventory of the methodologies used in relevant foresight and horizon-scanning studies performed;
 - o The scope of these kind of studies, their validity and feasibility, and map their outputs on an on-going basis in respect of the needs of the global network;
 - o Methods preferred for future survey or foresight studies to cover the dynamics of the area.

The FPU will not perform any foresight studies as such but should be able to identify the specific and dynamic needs for these studies and make recommendations to appropriate funders to initiate them.

5.2 Develop a common strategic research agenda and Action Plan based on shared priorities, at the regional and global levels:

- Draft criteria for priority setting based on the activities of the EMIDA FPU and information gathered in WP2 of this project;
- Produce draft lists of drivers, issues and possible future strategic research topics on a regional and global level and prioritise these lists in one or more international, multidisciplinary exercise. The work will be based on the strategic research agenda of EMIDA, the analysis done in WP2, the Strategic Research Agenda of the European Technology Platform for Global Animal Health and relevant foresight studies and horizon scanning studies to date. If necessary (lack of outlooks, incomplete coverage) recommendations could be developed for an additional foresight study or confined survey to be executed based on the findings of STAR-IDAZ;
- Produce draft common agendas, based on a 5-15 year forward outlook, on which programmes of work can be based for trans-national coordination;
- The draft agendas and criteria for priority setting will be validated on its sense of reality through consultation. A variety of stakeholders will be consulted, including policymakers (responsible for legislation and risk

WT3: Work package description

management), researchers, members of agro-industry, NGO's, consumers and other organisations as appropriate;

- The final proposed agendas and their spin-off, research programmes and an Action Plan for joint trans-national activities, will be submitted to the Network Partners for final agreement.

The consultation phase will be carried out by the regional networks, but if necessary assisted via a subcontractor(s). If needed, there will be a call for tenders throughout the Network Partners. A specification will be agreed by the core management group and will involve (inter alia) a desk study to draft lists of strategic research topics and use WP2 results to draft criteria for priority setting.

Person-Months per Participant

Participant number ¹⁰	Participant short name ¹¹	Person-months per participant
1	Defra	6.00
2	CAAS	12.00
4	Embrapa	6.00
7	USDA-ARS	1.00
8	CONASA	6.00
12	MGAVM and B	6.50
13	ICISTE	5.00
15	DVPHNFS	4.00
16	INIA	2.00
17	PAH	3.00
20	MAH	3.00
Total		54.50

List of deliverables

Deliverable Number ⁶¹	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature ⁶²	Dissemination level ⁶³	Delivery date ⁶⁴
D5.1	Terms of reference for the expanded FPU	15	1.00	O	PP	6
D5.2	Strategic Research Agenda and Action Plan	15	3.00	R	PU	45
Total			4.00			

Description of deliverables

D5.1) Terms of reference for the expanded FPU: Agreed extended Terms of reference for the expanded FPU to include global contexts [month 6]

D5.2) Strategic Research Agenda and Action Plan: Strategic Research Agenda and Action Plan as agreed at final conference [month 45]

WT3: Work package description

Schedule of relevant Milestones

Milestone number ⁵⁹	Milestone name	Lead beneficiary number	Delivery date from Annex I ⁶⁰	Comments
MS31	Terms of Reference for expanded FPU agreed	15	6	Document to be made available on the project website
MS32	Work plan, for analysis of the outputs of the EMIDA FPU foresight synthesis	15	12	Agreed work plan, for analysis of the outputs of the EMIDA FPU foresight synthesis for main research drivers, in a global context
MS33	Criteria for priority setting identified	15	30	Document available on website
MS34	Database of foresight experts	15	30	Document available on website
MS35	Draft list of emerging issues and global research priorities	13	30	A 5-15 year draft list of emerging issues and global research priorities for consultation.
MS36	Final draft list of research priorities	13	36	Output report of consultation exercise and a final draft list of research priorities
MS37	Draft list of future research needs	15	40	Draft list of future research needs at a regional and global level prepared and made available on the project website

WT4: List of Milestones

Project Number ¹	265919	Project Acronym ²	STAR-IDAZ
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List and Schedule of Milestones

Milestone number ⁵⁹	Milestone name	WP number ⁵³	Lead beneficiary number	Delivery date from Annex I ⁶⁰	Comments
MS1	Consortium agreement including data-sharing policy	WP1	1	6	Agreed documents - a consortium agreement outlining operational procedures of the network and an agreed data sharing policy
MS2	Relevant INCO-Nets identified	WP1	1	6	List of INCO-NETs
MS3	Kick-off meeting	WP1	1	6	Minutes produced
MS4	Project website and discussion forum	WP1	1	6	Web site accessible - Project website with links to the Collaborative Working Group on Animal Health and Welfare research and Partner databases and with restricted areas for Partners
MS5	Communication and Dissemination Strategy	WP1	1	6	External Communication and Dissemination Strategy produced, including database of interested parties for dissemination of activities
MS6	Proposition for the design of information portal on national programmes	WP2	3	2	Draft proposal & demonstration submitted to consortium
MS7	Proposal for the architecture and functionalities of research output database	WP2	3	2	Draft proposal
MS8	Operational information portal	WP2	3	4	An Information portal on current national programmes and overall organisation of animal health research in partner countries.
MS9	Web interface of database	WP2	3	4	Draft proposition & demonstration submitted to consortium
MS10	Relational database	WP2	3	6	A relational (access) database of bibliometrical and webometrical information sources and

WT4: List of Milestones

Milestone number ⁵⁹	Milestone name	WP number ⁵³	Lead beneficiary number	Delivery date from Annex I ⁶⁰	Comments
					its web-based search interface for external users to map main research organisations in partner countries
MS11	Draft publication on collaboration networks	WP2	3	10	Report submitted to WP2 participants
MS12	First report on mapped information collected through information portal	WP2	3	10	Report
MS13	Research output database assembled/populated	WP2	3	12	Announcement
MS14	Report on international research collaboration networks	WP2	3	12	Report on international research collaboration networks
MS15	Draft report on mapping indicators	WP2	3	18	Report submitted to WP2 participants
MS16	Report on indicators of programme mapping	WP2	3	20	Report on the use of the research mapping indicators and other bibliometric indicators produced within the project in the designing of future research programmes following group discussion.
MS17	Second report on mapped information collected through information portal	WP2	3	22	Report
MS18	Research output database: end of second round of updating	WP2	3	24	Announcement
MS19	National research needs and priorities for next 2-5 years	WP3	9	10	National research needs and priorities for next 2-5 years and International priorities and trends identified
MS20	Priority diseases identified	WP3	9	12	List of diseases identified and available on project website

WT4: List of Milestones

Milestone number ⁵⁹	Milestone name	WP number ⁵³	Lead beneficiary number	Delivery date from Annex I ⁶⁰	Comments
MS21	Research needs for priority diseases established	WP3	9	12	List of research needs identified and available on project website
MS22	Research needs for collaborative actions established	WP3	9	18	List made available on project web site
MS23	Agree topics for collaborative actions	WP3	9	24	List available on project web site
MS24	Mechanisms for collaborative/joint actions identified	WP3	9	24	List available on project web site
MS25	Topics for possible joint/coordinated calls	WP3	9	33	Identify and describe at least one topic for possible joint/coordinated call
MS26	Networking Options	WP4	21	12	Recommendations on the most suitable option for networking existing research activities, including the identification of bottlenecks preventing/hindering cooperation.
MS27	Potential networking opportunities on priority diseases identified	WP4	21	18	Report prepared for the network partners
MS28	Suitable instruments to deepen transnational collaboration	WP4	21	24	Internal report identifying instruments to deepen transnational collaboration.
MS29	Research partnerships	WP4	21	48	Research networks/partnerships established in selected priority areas over the period from Month 24-48.
MS30	Research partnerships ready to submit proposals for common scientific work	WP4	21	36	Sets of potential research partnerships ready to submit proposals for common scientific work to funding bodies of choice
MS31	Terms of Reference for expanded FPU agreed	WP5	15	6	Document to be made available on the project website
MS32	Work plan, for analysis of the outputs of the EMIDA FPU foresight synthesis	WP5	15	12	Agreed work plan, for analysis of the outputs of the EMIDA FPU foresight synthesis for

WT4: List of Milestones

Milestone number ⁵⁹	Milestone name	WP number ⁵³	Lead beneficiary number	Delivery date from Annex I ⁶⁰	Comments
					main research drivers, in a global context
MS33	Criteria for priority setting identified	WP5	15	30	Document available on website
MS34	Database of foresight experts	WP5	15	30	Document available on website
MS35	Draft list of emerging issues and global research priorities	WP5	13	30	A 5-15 year draft list of emerging issues and global research priorities for consultation.
MS36	Final draft list of research priorities	WP5	13	36	Output report of consultation exercise and a final draft list of research priorities
MS37	Draft list of future research needs	WP5	15	40	Draft list of future research needs at a regional and global level prepared and made available on the project website

WT5: Tentative schedule of Project Reviews

Project Number ¹	265919	Project Acronym ²	STAR-IDAZ
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Tentative schedule of Project Reviews

Review number ⁶⁵	Tentative timing	Planned venue of review	Comments, if any
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Project Effort by Beneficiary and Work Package

Project Number ¹	265919	Project Acronym ²	STAR-IDAZ
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Indicative efforts (man-months) per Beneficiary per Work Package

Beneficiary number and short-name	WP 1	WP 2	WP 3	WP 4	WP 5	Total per Beneficiary
1 - Defra	40.00	6.00	6.00	6.00	6.00	64.00
2 - CAAS	4.00	8.00	8.00	8.00	12.00	40.00
3 - INRA	1.00	48.00	0.00	0.00	0.00	49.00
4 - Embrapa	2.00	12.00	12.00	6.00	6.00	38.00
5 - FRST	1.00	1.00	0.00	1.00	0.00	3.00
6 - MINCYT	1.00	1.00	0.00	0.00	0.00	2.00
7 - USDA-ARS	1.00	1.00	4.00	1.00	1.00	8.00
8 - CONASA	1.00	3.00	4.00	4.00	6.00	18.00
9 - DFIA	1.00	1.00	4.00	0.00	0.00	6.00
10 - JÜLICH	0.75	0.50	0.00	0.00	0.00	1.25
11 - CFIA	1.00	1.00	0.00	0.00	0.00	2.00
12 - MGAVM and B	1.00	7.00	9.00	6.50	6.50	30.00
13 - ICISTE	1.00	5.00	5.00	4.00	5.00	20.00
14 - EL&I	1.00	1.00	0.00	0.00	0.00	2.00
15 - DVPHNFS	1.00	1.00	0.00	0.00	4.00	6.00
16 - INIA	1.00	1.00	3.00	3.00	2.00	10.00
17 - PAH	1.00	1.00	3.00	0.00	3.00	8.00
18 - AG DAFF	2.00	1.00	0.00	0.00	0.00	3.00
19 - DBT	1.00	1.00	0.00	0.00	0.00	2.00
20 - MAH	1.00	1.00	3.00	0.00	3.00	8.00
21 - BBSRC	1.00	1.00	0.00	4.00	0.00	6.00
22 - IFAH	1.00	1.00	0.00	0.00	0.00	2.00

WT6:

Project Effort by Beneficiary and Work Package

Beneficiary number and short-name	WP 1	WP 2	WP 3	WP 4	WP 5	Total per Beneficiary
Total	65.75	103.50	61.00	43.50	54.50	328.25

Project Effort by Activity type per Beneficiary

Project Number ¹	265919	Project Acronym ²	STAR-IDAZ
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Indicative efforts per Activity Type per Beneficiary

Activity type	Part. 1 Defra	Part. 2 CAAS	Part. 3 INRA	Part. 4 Embrapa	Part. 5 FRST	Part. 6 MINCYT	Part. 7 USDA- AR	Part. 8 CONASA	Part. 9 DFIA	Part. 10 JÜLICH	Part. 11 CFIA	Part. 12 MGAVM a	Part. 13 ICISTE	Part. 14 EL&I
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3. Consortium Management activities														
Total Management	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Work Packages for Coordination activities														
WP 1	40.00	4.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	0.75	1.00	1.00	1.00	1.00
WP 2	6.00	8.00	48.00	12.00	1.00	1.00	1.00	3.00	1.00	0.50	1.00	7.00	5.00	1.00
WP 3	6.00	8.00	0.00	12.00	0.00	0.00	4.00	4.00	4.00	0.00	0.00	9.00	5.00	0.00
WP 4	6.00	8.00	0.00	6.00	1.00	0.00	1.00	4.00	0.00	0.00	0.00	6.50	4.00	0.00
WP 5	6.00	12.00	0.00	6.00	0.00	0.00	1.00	6.00	0.00	0.00	0.00	6.50	5.00	0.00
Total Coordination	64.00	40.00	49.00	38.00	3.00	2.00	8.00	18.00	6.00	1.25	2.00	30.00	20.00	2.00

4. Other activities														
Total other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Total	64.00	40.00	49.00	38.00	3.00	2.00	8.00	18.00	6.00	1.25	2.00	30.00	20.00	2.00
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Project Effort by Activity type per Beneficiary

Activity type	Part. 15 DVPHNFS	Part. 16 INIA	Part. 17 PAH	Part. 18 AG DAFF	Part. 19 DBT	Part. 20 MAH	Part. 21 BBSRC	Part. 22 IFAH	Total
3. Consortium Management activities									
Total Management	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Work Packages for Coordination activities									
WP 1	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	65.75
WP 2	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	103.50
WP 3	0.00	3.00	3.00	0.00	0.00	3.00	0.00	0.00	61.00
WP 4	0.00	3.00	0.00	0.00	0.00	0.00	4.00	0.00	43.50
WP 5	4.00	2.00	3.00	0.00	0.00	3.00	0.00	0.00	54.50
Total Coordination	6.00	10.00	8.00	3.00	2.00	8.00	6.00	2.00	328.25
4. Other activities									
Total other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	6.00	10.00	8.00	3.00	2.00	8.00	6.00	2.00	328.25

WT8: Project Effort and costs

Project Number ¹	265919	Project Acronym ²	STAR-IDAZ
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Project efforts and costs

Beneficiary number	Beneficiary short name	Estimated eligible costs (whole duration of the project)						Total receipts (€)	Requested EU contribution (€)
		Effort (PM)	Personnel costs (€)	Subcontracting (€)	Other Direct costs (€)	Indirect costs OR lump sum, flat-rate or scale-of-unit (€)	Total costs		
1	Defra	64.00	230,000.00	80,000.00	96,100.00	65,220.00	471,320.00	0.00	428,927.00
2	CAAS	40.00	0.00	0.00	0.00	50,718.00	50,718.00	0.00	50,718.00
3	INRA	49.00	70,000.00	0.00	62,100.00	26,420.00	158,520.00	0.00	141,347.00
4	Embrapa	38.00	5,000.00	0.00	38,700.00	8,740.00	52,440.00	0.00	46,759.00
5	FRST	3.00	0.00	0.00	10,700.00	2,140.00	12,840.00	0.00	11,449.00
6	MINCYT	2.00	0.00	0.00	10,700.00	2,140.00	12,840.00	0.00	11,449.00
7	USDA-ARS	8.00	0.00	0.00	36,700.00	7,340.00	44,040.00	0.00	39,269.00
8	CONASA	18.00	0.00	0.00	10,700.00	2,140.00	12,840.00	0.00	11,449.00
9	DFIA	6.00	27,000.00	0.00	7,600.00	2,422.00	37,022.00	0.00	37,022.00
10	JÜLICH	1.25	0.00	0.00	6,600.00	462.00	7,062.00	0.00	7,062.00
11	CFIA	2.00	0.00	0.00	10,700.00	2,140.00	12,840.00	0.00	11,449.00
12	MGAVM and	30.00	0.00	0.00	0.00	11,449.00	11,449.00	0.00	11,449.00
13	ICISTE	20.00	0.00	0.00	0.00	39,269.00	39,269.00	0.00	39,269.00
14	EL&I	2.00	0.00	0.00	6,600.00	1,320.00	7,920.00	0.00	7,062.00
15	DVPHNFS	6.00	27,000.00	0.00	7,600.00	6,920.00	41,520.00	0.00	37,022.00
16	INIA	10.00	0.00	0.00	11,100.00	2,220.00	13,320.00	0.00	11,877.00
17	PAH	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	AG DAFF	3.00	5,000.00	0.00	39,700.00	8,940.00	53,640.00	0.00	47,829.00
19	DBT	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	MAH	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	BBSRC	6.00	0.00	0.00	44,600.00	8,920.00	53,520.00	0.00	47,722.00

WT8: Project Effort and costs

Beneficiary number	Beneficiary short name	Estimated eligible costs (whole duration of the project)						Total receipts (€)	Requested EU contribution (€)
		Effort (PM)	Personnel costs (€)	Subcontracting (€)	Other Direct costs (€)	Indirect costs OR lump sum, flat-rate or scale-of-unit (€)	Total costs		
22	IFAH	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		328.25	389,000.00	80,000.00	443,000.00	161,044.00	1,174,480.00	0.00	999,130.00

1. Project number

The project number has been assigned by the Commission as the unique identifier for your project. It cannot be changed. The project number **should appear on each page of the grant agreement preparation documents (part A and part B)** to prevent errors during its handling.

2. Project acronym

Use the project acronym as given in the submitted proposal. It cannot be changed unless agreed so during the negotiations. The same acronym **should appear on each page of the grant agreement preparation documents (part A and part B)** to prevent errors during its handling.

53. Work Package number

Work package number: WP1, WP2, WP3, ..., WPn

54. Type of activity

For all FP7 projects each work package must relate to one (and only one) of the following possible types of activity (only if applicable for the chosen funding scheme – must correspond to the GPF Form Ax.v):

- **RTD/INNO** = Research and technological development including scientific coordination - applicable for Collaborative Projects and Networks of Excellence
- **DEM** = Demonstration - applicable for collaborative projects and Research for the Benefit of Specific Groups
- **MGT** = Management of the consortium - applicable for all funding schemes
- **OTHER** = Other specific activities, applicable for all funding schemes
- **COORD** = Coordination activities – applicable only for CAs
- **SUPP** = Support activities – applicable only for SAs

55. Lead beneficiary number

Number of the beneficiary leading the work in this work package.

56. Person-months per work package

The total number of person-months allocated to each work package.

57. Start month

Relative start date for the work in the specific work packages, month 1 marking the start date of the project, and all other start dates being relative to this start date.

58. End month

Relative end date, month 1 marking the start date of the project, and all end dates being relative to this start date.

59. Milestone number

Milestone number: MS1, MS2, ..., MSn

60. Delivery date for Milestone

Month in which the milestone will be achieved. Month 1 marking the start date of the project, and all delivery dates being relative to this start date.

61. Deliverable number

Deliverable numbers in order of delivery dates: D1 – Dn

62. Nature

Please indicate the nature of the deliverable using one of the following codes

R = Report, **P** = Prototype, **D** = Demonstrator, **O** = Other

63. Dissemination level

Please indicate the dissemination level using one of the following codes:

- **PU** = Public
- **PP** = Restricted to other programme participants (including the Commission Services)
- **RE** = Restricted to a group specified by the consortium (including the Commission Services)
- **CO** = Confidential, only for members of the consortium (including the Commission Services)

- **Restreint UE** = Classified with the classification level "Restreint UE" according to Commission Decision 2001/844 and amendments
- **Confidentiel UE** = Classified with the mention of the classification level "Confidentiel UE" according to Commission Decision 2001/844 and amendments
- **Secret UE** = Classified with the mention of the classification level "Secret UE" according to Commission Decision 2001/844 and amendments

64. Delivery date for Deliverable

Month in which the deliverables will be available. Month 1 marking the start date of the project, and all delivery dates being relative to this start date

65. Review number

Review number: RV1, RV2, ..., RVn

66. Tentative timing of reviews

Month after which the review will take place. Month 1 marking the start date of the project, and all delivery dates being relative to this start date.

67. Person-months per Deliverable

The total number of person-month allocated to each deliverable.

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B1. Concept and objectives, contribution to the coordination of high quality research, quality and effectiveness of the coordination mechanism and associated work plan

B 1.1 Concept and project objective(s)

B1.1a Background and Concept.

Animal diseases cause serious social, economic and environmental damage and in some cases (zoonoses) also threaten human health. Unanticipated and emerging threats are ever present and have unwanted local, national, regional and global impacts. These disease threats, which may have significant consequences for essential animal industries (including livestock aquaculture and apiculture) and related economies and national social systems around the world. The associated risks have increased over recent decades, especially as a result of the increased globalisation of trade and animal product movements, and the consequent transfer of associated fast evolving pathogens. These changes are exacerbated by interaction with environmental change, including changes to land use and the potential variabilities associated with climate change.

Improved awareness of, preparedness for and response to outbreaks are needed for the effective management of the threats of animal diseases (including zoonoses) — and depend on sound science. Scientific research thus makes a significant contribution to the development of effective disease management and associated policy. Well-targeted research delivers practical solutions for improving and safeguarding animal, human and environmental health. There is thus a clear and strong driver for undertaking research on infectious diseases of animals (including livestock, aquatic animals and bees) — that of providing the evidence needed for the development of technologies to protect the livestock industry, wildlife and the human population from animal diseases, including zoonotic risks, particularly from emerging disease threats and for the control or eradication of disease outbreaks where they occur.

There are well-established national, regional and (in specific cases) international regulatory regimes that underpin policies for the control of major animal diseases (including zoonoses). However, the research that supports policy development and implementation is still (with some exceptions) primarily commissioned and executed at the national level and remains poorly coordinated at the regional or international level.

There is an urgent need to develop more effective and improved control methods for the major diseases of livestock, as has been outlined in the Vision Statement of the European Technology Platform on Global Animal Health¹. The requirements to address this are detailed in the Strategic Research Agenda, with mapping of existing research activities and capacity and coordination of research activities identified as priority areas for action.

Improved coordination of, and international collaboration in, current research activity is needed to ensure the efficient and effective underpinning of national policies regarding trans-boundary and other animal diseases (including zoonoses) and the sustainability of the livestock and animal health industries and of

¹ <http://www.etpgah.eu/>

animal health science capacity. The SCAR Collaborative Working Group (CWG) on Animal Health and Welfare research² under the EU Standing Committee on Agriculture Research (SCAR) and EMIDA ERA-NET³ have been developed to address this gap in Europe. These initiatives aim to develop a durable, focused network of national research funders in Member and Associated States of the EU that will share information, coordinate research and related activities, and work towards agreed research priorities and jointly funded research activities.

Many of the major disease threats faced by the livestock industry (and in the case of zoonoses, by humans) are of a global nature and for some much of the relevant research effort is located outside Europe. This necessitates seeking wider coordination and collaboration, if rapid progress on disease control is to be achieved. For example, the constant evolution of Marek's disease, virus makes it a serious threat to the global poultry industry, but only two or three groups in Europe and a total of about eight globally are carrying out significant research on this disease. To be effective, global collaboration of research effort is needed — as shown by the effectiveness of the global campaign to eradicate rinderpest. Research on foot-and-mouth diseases (FMD) is currently benefiting from a similar global alliance on FMD research⁴. Other areas that would benefit from more structured and wider collaborations include research on avian and swine influenza, bluetongue, West Nile virus, anthelmintic resistance, and antimicrobial resistance.

The proposed Global Network on Animal Health Research (STAR-IDAZ) thus aims to extend the collaborative activities started under EMIDA and under the forum of the Collaborative Working Group on Animal Health and Welfare by developing mechanisms to ensure durable cooperation and coordination of (national) research programmes on animal (including aquatic animal) health and zoonoses world-wide. In addition, the project will specifically seek to respond to the principles, processes and priority issues described in the OIE framework report *The Global Framework for Progressive Control of Transboundary Animal Diseases* (GF-TADs)⁵. In particular, the project will seek to address weaknesses in provision of research evidence in the development of effective preventive strategies and policies for global infectious diseases. The project will provide additional resources to enable coordination and better networking of globally relevant and targeted research activities to achieve six main goals:

- To develop a sustainable capacity to deliver systematic and integrated animal health research activities at the global level.
- To optimise the use of nationally limited research provision to improve animal disease awareness, risk assessment, disease control and the sustainability of livestock industries (including aquaculture).

² <http://www.scar-cwg-ahw.org/>

³ EMIDA – “Coordination of European Research on Emerging and Major Infectious Diseases of livestock” – weblink: <http://www.emida-era.net/>

⁴ <http://http://www.ars.usda.gov/GFRA/>

⁵ http://www.oie.int/fr/OIE/accords/GF-TADs_approved_version24May2004.pdf

- To improve the protection of human health through the coordination of funding to develop improved tools for the control of the major zoonotic disease.
- To share the burdens of research and enable access to knowledge and data to facilitate effective transfer and adaptation to 'local' situations, based on mutual need and benefit.
- To share 'best practice' in the development of research priorities and encourage the establishment of 'mutual confidence' in research management capacity across the network.
- To foster linkage of research programmes and collaborative networks on issues of global priority.

State of the Art

Research on emerging and major infectious diseases of animals (including aquatic animals) aims to provide better understanding of the biology and dynamics of disease occurrence and the development of improved surveillance, diagnosis and control. The results of such research are used to advise policy makers of risks and control strategies/options and the development of technologies for disease control for uptake by diagnostic services and veterinary pharmaceutical industry.

The identification of requirements for, and subsequent funding of research on, emerging and major infectious diseases of animals (including zoonoses) is currently poorly coordinated. For example, in Europe separate national programmes operate, all based on national priorities and varying in magnitude. Animal health research has also been funded under EU programmes (e.g. Framework Programmes 5, 6 and 7) that were established to try to improve collaboration between EU researchers — and create the critical mass and efficient utilisation of expensive facilities necessary to improve competitiveness of European research and assist the creation of a coherent European Research Area. Some of these projects involved partners from outside Europe (e.g. Parasol involved New Zealand and South Africa in addition to the European partners). Some networking of animal health researchers also occurs through a range of other initiatives (e.g. EPIZONE, Med-Vet-Net, and the Global FMD Research Alliance). The EU R&D programmes thus illustrate the willingness of researchers to collaborate in this area and ably demonstrate the added-value of trans-national R&D in animal health.

Lack of coordination between the funding bodies can result in duplication of effort in some areas and insufficient attention and funding being given to other areas. Recent disease threats, such as such as the global threat from H5N1 avian influenza and H1N1 swine influenza and the spread of bluetongue in Europe, highlight the need for rapid coordinated research to provide the evidence needed for the development of effective control policies. In 2006, about seven EU Member States committed approximately 27.5 million Euros to research on avian influenza; however, the global research effort was several times that amount. The incursion of bluetongue in Northern Europe in 2006 also resulted in new research being undertaken in a number of Member States without any formal coordination of activities. Emerging disease threats, with their global significance, create the need for rapid coordination of research involving not only MS and AMS but also collaboration with other funders globally.

A **Collaborative Working Group** under the EU Standing Committee on Agriculture Research was established in late 2005, to provide a forum for improved collaboration on setting research priorities, procurement, and creating the necessary critical mass and focus to deliver the animal health and welfare research needs for European policy-makers and the European livestock industry. This informal group involved 16 MS and 5 AMS using their own resources to interact and share information on ongoing and planned research activities. It aims to develop a durable focused network of national research funders in Member and Associated States of the EU with a common research agenda and mutual research funding activities in the field of animal health and welfare, including aquatic animal health and welfare and zoonoses. The ultimate aim is the development of a common research agenda with jointly funded programmes. The CWG has developed its own website (<http://www.scar-cwg-ahw.org>), with an associated searchable database in which members are listing ongoing research activities. Subsequently, EU funding was obtained for the establishment of an ERA-NET on emerging and major infectious diseases of animals (EMIDA) to build on and accelerate the work of the SCAR CWG on animal health research. This network involves 27 partners from 19 countries, with a combined annual research budget in the region of 270 million Euros. EMIDA is in the process of mapping current research activities across the various MS and AS and has developed databases of research outputs and patents for the 2004–08 period in the field of animal health globally. A common call for research proposals on four topics with a budget in the region of 20 million Euros was launched during the mid-2009. The Global Net will benefit from the existence of the network of funders forming EMIDA and the CWG and procedures being developed for mapping current research activities and other information collected across the broad area of animal health and welfare. The CWG will also provide the long-term sustainable structure for collaborative activities and the European focal point for involvement in global initiatives.

The **European Technology Platform on Global Animal Health** (ETPGAH), with its Strategic Research Agenda and Action Plan, provides an industrial focus for targeting research funding while EMIDA supports the activities of the Technology Platform by identifying research needs and focusing activities on the deliverables required for developing improved control of significant animal diseases. Recent rationalisation and consolidation in the animal genetics and animal health industries should enhance opportunities for interacting with industry in the co-funding of research.

The development of a global network is timely given that mechanisms for improved collaboration between Europe and third countries, including the implementation of common calls, have been developed through a series of INCO-Nets including International ERA-NETs (CO-REACH, New INDIGO, EULARINET, ENLACE, BILAT-USA, BILAT-Rus and ERA.NET RUS).

Realisation of a global research alliance on the control of animal diseases

Global challenges need global solutions that can only be achieved in the required timeframe through a common research effort. Many of the disease problems (such as FMD, influenza, antimicrobial resistance and anthelmintic resistance) facing the livestock industries are global challenges, either directly or

indirectly through their effect on international trade. Animal diseases affecting human health present similar global challenges.

The Global Network on Animal Health Research will enable the development of a durable coordinated research effort on the major infectious diseases (including zoonoses) of animals (including aquatic animals) by involving existing and future key players through:

- Greater sharing of information between (trans)national programmes.
- Development of links between ongoing research programmes on priority diseases, with sharing of information and resources and creation of critical mass.
- Better coordination of existing national programmes across the partner organisations.
- Development of a common agenda based on identified, shared priorities.
- Creation of a long-term, durable network of animal health research funders.
- Building animal health research capacity by addressing identified gaps in research capacity to ensure adequate provision globally.

The network will enable better co-ordination and structuring of animal health research globally with the following key benefits realised:

- Efficient deployment of national funds for both national and trans-national (joint) research, including research procurement in response to emergency situations.
- Improved cost-effectiveness of commissioned research, by creating a consensus on the level of funding that should be directed at given priorities of both nationally and internationally-funded programmes.
- Improved coordination of research priorities suitable for future programme funding
- Improved availability of validated and relevant research data for animal health policy makers, and the animal health and livestock industries (including aquaculture).
- Improved availability of information on national research capacity, including expertise, in the various areas.
- Identification of the needs for building capacity and capability in animal health research.
- Improved consultation with other international policy-makers and animal health organisations (e.g. EFSA, ECDC, OIE, FAO, and WHO).

The prospects for rapid improvement in the coordination of research in the proposed area covered by the global net are very good. Participating partners consider that the Global Network on Animal Health Research complements and will add significant value to their current responsibilities of managing national research programmes. The European partners, through their participation in the CWG and associated ERA-NET, have already shown their willingness to collaborate and are already making a significant contribution, from their own national resources, to collaborative activities. However, through providing the necessary resources for the integration of activities of the network of partners, who are

separately engaged in similar work (funding and managing national research programmes, planning national strategies for future investment in research etc.), the global network will accelerate the development of an additional strong global dimension to be brought to the work of the funding partners and, for the first time, provide a formal opportunity for partners to learn from each other.

The proposal addresses the strategic objective of the Framework 7 Programme ‘Building a European Knowledge Based Bio-Economy’ by supporting cooperation on and coordination of research programming and funding carried out at national and regional levels. It supports the activities of EFSA in the animal health field and complements the efforts of the European Technology Platform on Global Animal Health by addressing a number of important issues identified in its Strategic Research Agenda.

1.1b Objectives

The aim of the Global Network on Animal Health Research is to improve coordination of research activities on the major infectious diseases of animals (including zoonoses) so as to hasten the delivery of improved control methods. This will be achieved through the establishment of an international forum of R&D programme owners and managers and international organisations to share information, improve collaboration on research activities and work towards common research agendas and coordinated research funding on the major animal diseases affecting livestock production and human health. The network brings together some of the major global players on animal health research to address call “KBBE.2010.1.3-02: Promoting coordination and cooperation at international level of research programmes in the area of animal health, in particular infectious diseases including zoonoses”

The scope of the project will include coordination of research relevant to emerging and major infectious diseases of production animals (livestock, including aquatic animals and bees) and those animal infections that may threaten human health (i.e. zoonoses). Diseases of wildlife and other free-living animals will also be considered where they are identified as reservoirs of infection of emerging and major infectious diseases of humans or production animals.

The focus of the global network will be to build on the work of the SCAR collaborative working group on animal health and welfare research, the EMIDA ERA-NET project and specific INCO-NETs involving target countries, including exchange of information, mapping and organisation of networks and partnerships relating to ongoing activities and coordination of funding in areas of common interest to participating organisations.

The specific objectives of the global network are to:

- Strengthen the linkages between and reduce the duplication of global research effort on high priority infectious diseases of animals (including zoonoses) maximise the efficient use of expertise and resources and accelerate coordinated development of control methods.
- Identify and co-ordinate the response to gaps in research activities for targeted diseases.
- Create the necessary critical mass and capacity to address emerging infectious disease threats.

- Improve the cost-effectiveness and added value to network partners of current research programmes.
- Develop durable procedures for a better co-ordinated, rapid response to urgent research needs.
- Identify unique regions with localised diseases and improve access to research in those areas.
- Improve access to and the utility of research results across all partner organisations.
- Facilitate the establishment of research management capacity and programmes in those partner countries wishing to develop research activities in this area.

These objectives will be addressed through five work-packages

Work Packages

WP1. Project coordination, management, communication and dissemination:

- To manage and co-ordinate the global network on Animal Health research.
- To administer the project.
- To manage the sharing and dissemination of project outputs within the network and for the wider benefit of other animal health research funders and stakeholders, including the provision of website and other fora for dissemination.
- To develop durable mechanisms for the longer-term co-ordination of global research effort on the major disease threats to animal production and health across partners.
- To encourage the establishment of regional networks of research funders and programme managers to extend the influence of the project beyond the Project Partners.
- Where appropriate, to seek to establish a common, mutually acceptable and practical process for consortium partners to exchange best practise in research policy development. If appropriate the established EU approach known as “Open Method of Co-ordination (OMC)” will be used.

WP2. Sharing information on existing research programmes:

- To extend the systems already established by the EMIDA project for systematic gathering and exchange of information on existing national and international animal health research programmes and to map existing linkages between regional and international research programmes. This will include identification of research programmes targeted at the specific diseases identified for collaborative activities and their recent research outputs.
- To organise and synthesise the gathered information so as to provide reliable and objective indicators, potentially useful for expert gap analysis and foresight activities and to support evidence-based policy making in research funding and programming.
- To understand the national organisation of research in animal health in partner countries, including funding, ownership and management of programmes, main research organisations and experimental facilities and links with research on related sectors (animal production, animal welfare, public health, ecological and environmental health etc).

WP3. Analysis of and responding to global, regional and industry sector priorities:

- To establish the priorities for a common approach to evidence and research needs of partners over a 2-5 year horizon, taking into account the probability for global and regional spread and economic impact of particular diseases, using OIE reports and the methods and outputs of the EMIDA and DISCONTTOOLS projects.
- To develop an agreed topology of issues that might form the basis of a priority action list for future research coordination. This to be based on a matrix of issues approach, for example:
 1. ‘Safe Trade’: diseases and risks associated with trade in livestock (ante and post mortem) – including ‘regulated’ and non-regulated trade and taking into account national, regional and global contexts;
 2. Disease categories (including zoonoses): viral, bacterial, parasitic and other (e.g. prion) diseases – taking into account a livestock sector (including aquaculture and bees) approach.
- To build a common research agenda on target priority diseases and issues.
- To identify a number of pilot issues where coordination of planned programmes would add value and implement coordinated/common calls during the lifetime of the project. Where appropriate this will be taken forward in collaboration with the established INCO-NETs

WP4. Networking of ongoing research activities on major animal health issues:

- To identify the most suitable mechanisms for improving cooperation on existing research programmes on infectious and zoonotic diseases.
- To identify, in cooperation with national programme owners, regional agencies, researchers and existing research platforms (e.g. INCO nets), bottlenecks preventing linkage of research programmes, and to make recommendations to overcome these.
- To identify opportunities for networking and coordination between existing (trans)national research programmes, which focus on priority infectious and zoonotic diseases (identified by WP2),
- To facilitate the establishment of networks/partnerships on priority diseases
- To identify and communicate funding mechanisms to enable common participation of researchers from EMIDA countries and global partners in various scientific programmes (FP&, national and international programmes).

WP5. Developing strategic trans-national animal health research agendas:

- To map the outputs of the EMIDA/SCAR CWG (European) foresight synthesis exercises against other global exercises. To look for confirmation / modifications of currently identified priorities

so as to integrate the global perspectives and to feed these into future exercises for strategic priority setting for a 5 – 15 year horizon.

- To develop a database of key experts for foresight exercises across the globe.

B 1.2 Contribution to the coordination of high quality research.

The coordination of research activities will contribute to the development of high quality research in the field of animal diseases through:

- Sharing information and agreeing research priorities on particular topics thus improving the focus of research activities.
- Preventing duplication and increasing the funding power as a result of the pooling of national resources thus potentially releasing funds to do more strategic ‘underpinning’ research.
- “Twinning” of research projects allowing the sharing of experimental protocols and resources, including strains of organisms and sequence data.
- Encouraging and helping to facilitate establishment of national animal health research programmes on specific issues in countries where they do not currently exist.
- Helping to maintain and develop research expertise in animal health-related sciences and making such expertise more accessible through joint activities and ‘mutual opening’, thus increasing research capacity in animal health.
- Developing common standards for commissioning and evaluating proposals and for the subsequent monitoring and evaluation of projects commissioned.
- Reinforcing and complementing activities designed to strengthen other parts of animal health research (e.g. national-funded training and infrastructure initiatives).
- Developing a mutually acceptable process for research policy development in the field
- Building a global SRA as a starting point for joint research procurement.

B 1.3 Quality and effectiveness of the coordination mechanisms and associated work Plan

B 1.3.1 Overall strategy and general description:

The Global Animal Health Network has five work-packages that will deliver the objectives of this coordination action. A project duration of four years was considered desirable to allow the building of confidence and mutual understanding necessary for the development of long term relationships and a durable global network. WP1 deals with the overall coordination and management of the project, including communication and dissemination. Subsequent work-packages aim to deliver the central objectives of the global network in a logical step-wise fashion with some activities, including mapping of research programmes and outputs, being a continuing process with annual or biannual updating. The proposed project is organised in a step-wise manner starting with information gathering and analysis

(WP2), then analysis and agreement on global, regional and industry sector research priorities and coordination of research on priority topics (WP3), networking of ongoing research activities through project twinning (WP4), and finally the establishment of a long-term vision with a common agenda based on shared priorities (WP5). A structure for long-term collaboration among project partners will be developed in collaboration with WP5. The work plan recognises that sharing of information and discussions on collaborative activities and the development of a long-term research strategy have already taken place in Europe through EMIDA and the CWG and will build on these activities taking into consideration the global perspectives and views of international organisations.

Work-Package 1 is concerned with building and coordinating a coherent network of organisations involved in funding and managing research programmes on animal health that will be able to deliver a trans-national vision for collaborative and coordinated research within a sustainable structure. It includes all of the required day-to-day project management and administrative activities and maintains a technical overview of the whole project to ensure delivery of the agreed objectives. It consists of three major activities **i)** project management and administration, including the provision of central coordination and admin support to the other work packages, **ii)** collation and communication of project information and dissemination of research programme details and **iii)** development of recommendations for sustainable structures for long-term global collaboration.

(i) Project management and administration will include developing a Consortium Agreement including effective governance structures; organising, chairing and preparing minutes of all Consortium and Network Management Board meetings (Project Secretariat); participating in the activities of the other work packages, including attending meetings to ensure activities are fully integrated, and providing admin support; managing finances and acting as the main interface with the Commission, including providing it with the required reports.

(ii) Communication and dissemination of project information and research programme details will entail developing a communication strategy and a data sharing policy; developing a project website linked to the CWG website and databases and producing an electronic Newsletter

(iii) Sustainable collaboration structures will include establishment of regional networks to act as foci for issues relevant to the regional dimension, but that are networked with a broader global system for a durable and systematic evidence-based approach to future research policy development (drawn from WP5). Efforts will be made to establish a common approach to development of research policy priorities within a global network approach that will be developed from this project. The project will seek to draw on other already established regional platforms (such as the INCO-Nets) to create durability. It will recognise that countries differ in their national structures and systems capacity for forward planning and for research policy development. To strengthen the coordination planning process, this Work-Package will explore the establishment of a programme of mutual institutional capacity building to embed a robust and evidence based research planning process. The project will seek to introduce the concept for the ongoing and proven EU tools of “Open Method of Coordination” (OMC) for research policy planning to the partners.

Work-Package 2 is primarily designed to **map current/existing research programmes** in animal health in participating countries. It aims to build on the work initiated by the CWG and developed further by EMIDA in gathering information on national and EU funded research programmes by extending it to include the activities of the project partners. This sharing of information will foster and encourage a spirit of trust and openness. The Work-Package will form the basis for future cooperation and collaboration with the eventual aim of establishing trans-national animal health research agenda based on shared views and priorities that will result in a concrete programme to be taken forward by the Project Partners.

Information will also be gathered to determine how programmes are managed within the context of national research structures and organisations. This will result in the development, under WP3, of trans-national collaboration on shared future research plans, including **possible synchronised calls**. The information will also help identify areas where existing projects would benefit from being linked together. An external survey on science and technology production indicators in the field of global animal health will be part of this mapping, enabling the objective identification of productive (or neglected) themes of research, according to country and institution.

The major outputs of WP2 will be delivered during the first 12 months of the project. These encompass in particular, an information portal on current national programmes (operational on month 4) and several integrated databases based on bibliometrics and webometrics sources designed to map research organisations and their major research topics (month 6), then the full report on mapping exercise with its two components - information from partners and production indicators (Month 18). Mapping of existing research activities will help identify potential for linkages between existing programmes and projects. These procedures of data retrieval and analysis will be repeated in the second half of the project to update information. In the same way, science production indicators can subsequently be established as permanent decision tools to help define future trans-national activities.

WP2 delivery will largely depend on the quality of the information on ongoing activities provided by the partners of the Global-Net, with the mapping of research outputs providing supportive information.

Work-Package 3 is concerned with identifying short - to mid-term (2 – 5 years) research priorities of partners and agreeing a coordinated response to common priorities at both the regional and global level. The focus will be to, in Collaboration with WP2, gather information on existing planning horizons and pipeline programmes, for possible priority research issues at a regional and at a global scale (in terms of disease categories) and to identify any specific research gaps or needs that are associated with broad industry sector risks associated with trade at these scales. The Work-Package will seek to validate and use the prioritisation methods developed in the EMIDA –ERANET and DISCONTTOOLS project for use in the global context. Information on pipeline programmes and existing horizon scanning activities from partners and international organisations, will be used including mapping any existing collaborations (drawing also on WP2), from each participating country and entered into a database linked to the project website. Emerging trends in animal disease occurrence will also be followed-up using selected internet-based early warning systems drawn from the OIE reference laboratory network, to identify possible unforeseen emergencies that may need to be addressed by urgent collaborative action. The Work-Package

will build a common research agenda on target priority diseases and issues and will attempt to identify areas where coordination of planned programmes and coordinated or common calls would give added value. Where appropriate this will be taken forward in collaboration with the established INCO-Nets.

Work-Package 4 will use WP2 outputs and will identify opportunities for networking, and coordinating groups of projects relating to priority diseases and issues (identified in WP3) from within existing national programmes. The Work-Package will seek to identify bottlenecks to such networking and will make recommendations to relevant and regional funders on opportunities to add value through applying additional resources to circumvent such bottlenecks (e.g. where short-term exchanges, twinning of laboratories and access to specialised facilities would be of significant benefit to the quality of the research outputs). The work-Package will also propose possible topics for development into future joint programmes or projects that could be funded through regional platforms and other funders.

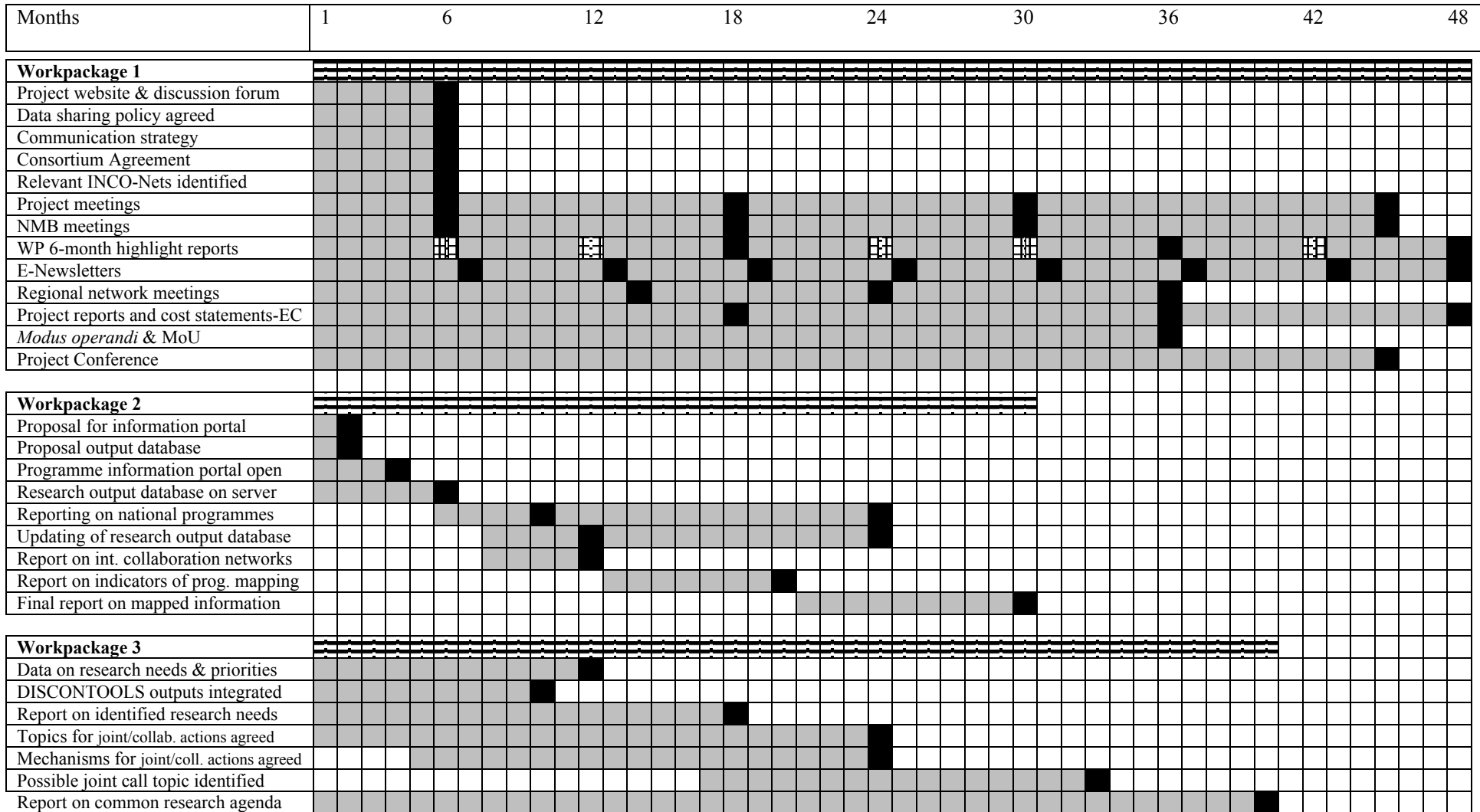
Work-Package 5 is a key component of building the global network into a forward-looking coherent structure of national animal health research funders capable of cross-programme collaboration that will better serve in terms of (human and financial) resources, the research needs of the Livestock industries and animal health policy makers. It will use outputs from already synthesised foresight analyses at the European level and map these against other exercises from other regions. The Work-Package will seek to consolidate around common global issues and identify drivers for future research priority-setting (over a 5 – 15 year horizon). The Work-Package will make recommendations for a common agenda for research on particular topics and a concrete action plan for collaboration and joint trans-national research activities. To facilitate implementation of the action plan, a sound foundation for a coherent management framework will be established by developing in collaboration with WP1 a Memorandum of Understanding between the parties detailing the network's vision and *modus operandi*.

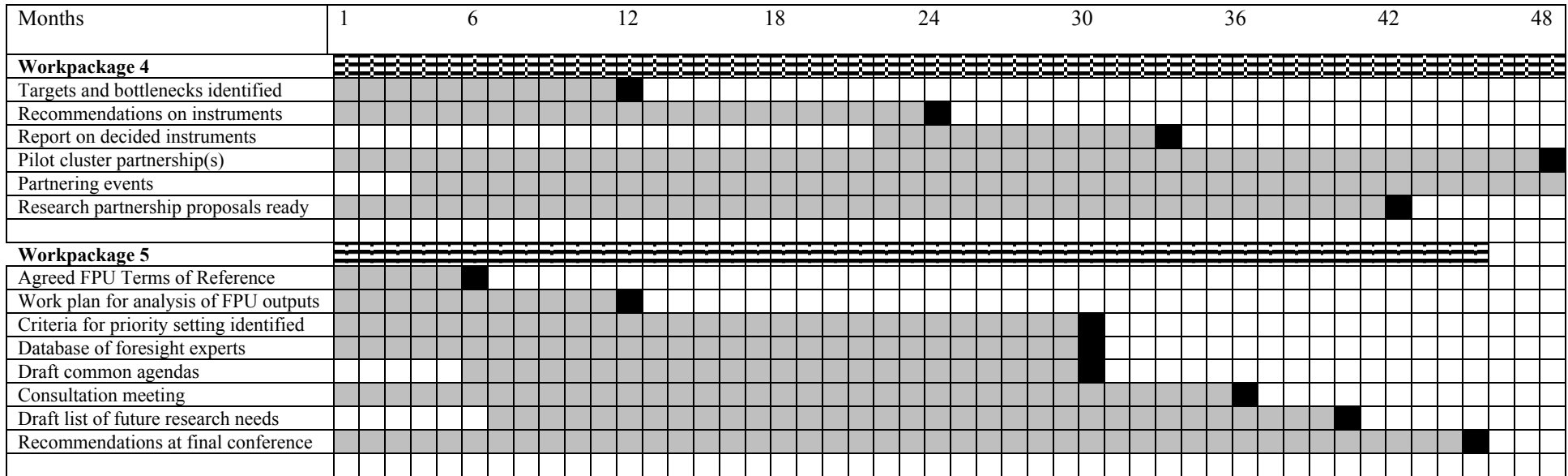
No significant risks are identified for delivery of the work plan. Possible risks would include reluctance or inability of some to disclose details of all ongoing research activities and failure to provide information on research activities. European members have been working together in the CWG and non-European partners have in some cases also been involved in INCO-Nets, including international ERA-NETs. In respect to WP 4, the ability to link current projects will depend on the effective engagement of the relevant projects and engagement of the prime funders. For WP 3, the applicability of DISCONTTOOLS to the global context may be a limiting factor. However, these risks are not considered to be significant.

The project involves key funders of research on animal diseases globally. Research funders who are not members of the consortium will be contacted and invited to be observers with the option, if they so wish, of joining as full members at a later date. In addition links have been established with major International bodies who will be Associated Partners.

B 1.3.2 Timing of the different Work Plans and their Components (Gantt chart)

Figure 1.3(a). GANTT chart showing main work plan components and timetable.





- Timeline for individual workpackages
- Milestones and Deliverables
- Six-monthly summary report for the Commission (Full Project Reports and Cost Statements shown as milestones at 18, 36 and 48 months)
- WP2 Low level data collection each year to maintain database

B2. Implementation

B 2.1 Management structure and procedures

The network will be directed by a Network Consortium (NC) consisting of a representative of each project Partner Organisations. Beneath them, the Coordinator and work-package leaders and deputy-leaders will form a Network Management Board (NMB) that will be responsible for the implementation of work approved by the Network Consortium. Where more than one person from any Partner Organisation attends a Network Consortium or NMB meeting the organisation concerned will have only one vote in any decision making process. The project will be coordinated by Defra (UK) which will have the primary administrative role. Work-package leaders will be responsible for delivery of their respective work-package tasks, assisted by their deputy leaders and the other participating partners. The roles and responsibilities of each of these groups are detailed below.

The management of the project will follow a similar structure to the successful management of the EMIDA ERA-NET.

The Network Consortium:

Full Project Partners making up the Network Consortium will be responsible for delivering their inputs into the Project. Partners will have the following responsibilities:

- Provision of information on national programmes
- Delivery of their specific contributions to each work-package
- Attendance at all necessary project meetings
- Provision of progress updates to the WP leader for reports
- Reviewing project outputs, as requested
- Provision of required cost statements
- Provision of audit certificates to the Coordinator.
- Contribution of national funds by some partners for pilot projects, as appropriate and depending on budgets

The Network Consortium will meet yearly and will be responsible for overseeing and advising on the Network's strategic direction, agreeing proposed activities, reviewing the progress of the Network and reviewing and endorsing specific outputs. **Consortium members attending meetings will be expected to have, or be in a position to organise the necessary mandate to represent their organisation fully, including as required the commitment of resources to joint activities.**

Regional Networks:

Regional Networks will be established covering i) the Americas and ii) Asia and the Australasia regions. EMIDA and the CWG will serve as the European regional network with Russia invited to join in with their activities. Partner 4 will coordinate the Americas regional network which will

involve relevant organisations from a number of other countries in the region in addition to the STAR-IDAZ regional partners and relevant international organisations, such as IICA, PANAFTOSA and OIRSA. Partner 19 will coordinate the Asia and Australasia regional network, involving relevant organisations from a number of other countries in the region in addition to the STAR-IDAZ regional partners and interacting with the activities of the Animal Production and Health Commission for Asia and the Pacific (APHCA).

Network Management Board (NMB):

This will be a management team comprised of the Leaders and Deputy-Leaders of the various Work-Packages (see Table 2.1). Meetings will be chaired by the Deputy-leader of WP1, supported by the Coordinator and Project Office/Secretariat (see below), and will be the main technical body in the global network. It will take responsibility for work-package progress and decisions regarding the work-packages and the Network development, and implementation of the Project Consortium's strategic decisions. The NMB will report on progress to the Network Consortium.

The Coordinator:

The Coordinator (Dr. Alex Morrow, Defra, UK) will have overall responsibility for the Project. Support will be provided to the Coordinator by the Project Office/Secretariat (Defra), which will comprise a dedicated Project Manager, with a science and financial management background, based within the administrative team supporting the Defra animal health and welfare research programme.

The Coordinator will have the following responsibilities:

- Technical oversight of the project direction and progress.
- Overall accountability for the Project Office.
- Chairing the annual Network Consortium meetings.
- Attending the Network Management Board meetings.
- Attending specific work-package meetings.
- Implementing strategic decisions of the Network Consortium and Network Management Board.
- Communication with the Commission.

The Project Office will be accountable to the Coordinator and will be responsible for the day-to-day project management, including the following:

- Legal, contractual, financial and administrative management of the consortium.
- Provision of the project secretariat, including for the Network Consortium and the Network Management Board.
- Organisation of Project Meetings.
- Organisation and collation of reports for the Coordinator, including Project, Financial and Deliverable reports.
- The Consortium Agreement.

- Management of the Internal and External Website pages.
- Implementing communications strategy.
- External Communication with interested parties, including e-newsletters.

Work-package Leaders and Deputy Leaders:

The overall objectives of the Global Network will be achieved through the 5 work-packages, each of which will be managed by a Work-Package Leader and a Deputy Leader. A number of work-package leaders have been identified already. They are currently involved in the network Management Group of EMIDA. The remaining work-package leaders and deputy leaders will be identified before at the start of the project from partners with interest in and the necessary resources and commitment to perform the required asks. Where a work-package leader comes from a European Member state effort will be made to identify a deputy from elsewhere. The WP Leaders are responsible for the management and delivery of their respective work-packages, including reports and specific communication activities. The WP Deputy Leaders will assist the WP Leaders in managing their respective work-packages.

The Work-package Leaders will have the following responsibilities:

- Overall management of individual work-packages.
- Overseeing delivery of WP tasks and Deliverables.
- WP reports required by the Coordinator and Commission
- Membership of the NMB.
- Liaison with the Coordinator.

The Work-package Deputy Leaders will have the following responsibilities:

- Support for WP Leader, e.g. discussion of WP developments; ensuring Partners deliver tasks.
- Assist in preparation for meetings.
- Deputise for WP Leader as required.
- Membership of the NMB

Table 2.1. Work-package Leaders and Deputy Leaders

WP No. and Short Name	WP Leader	WP Deputy Leader
1. Project coordination, management, communication and dissemination	Defra (Partner 1)	AG DAFF (Partner 19)
2. Sharing information on existing research programmes	INRA (Partner 2)	To be assigned
3. Analysis of and responding to global, regional and industry sector priorities	DFIA (Partner 9)	USDA - ARS (Partner 7)
4. Networking of ongoing research activities on major animal health issues	BBSRC (Partner 22)	CAAS (Partner 3)
5. Developing strategic trans-national animal health research agendas	DVPHNFS (Partner 15)	ICISTE (Partner 13)

Associated Partners:

They will participate by receiving papers and progress reports and will be able to attend Consortium meetings and providing expert views in support of the project. However, they will not have voting rights.

The list of Associated Partners/Observers includes-

World Organisation for Animal Health (OIE)

The European Food Safety Authority (EFSA)

The Wellcome Trust

Agriculture, Forestry and Fisheries Research Council Secretariat, Japan

Project Meetings:

Project Consortium meetings will be held annually, where possible timed to allow participation in other related international meetings. Additional business will be conducted electronically. If required, the Work package leaders and deputy leaders will host the meetings. Network Management Board meetings will take place at the same time as Consortium meetings with additional meeting, where possible by teleconferencing, in between Consortium meetings as required. Some additional meetings will be required by specific Work packages in-between the annual project meetings.

Regional networks covering a) Americas and b) Asia and Australasia will meet annually in the final three years of the project.

Project reports

In addition to the 3 Project/Financial reports required by the Commission (Months 18, 36 and 48) WP Leaders will provide quarterly reports to the Coordinator to ensure efficient management of the project. The Coordinator will, as required, submit brief 6-monthly interim reports to the Commission.

B 2.2 Beneficiaries

PARTNER I: UK - DEFRA

The Department for the Environment, Food and Rural Affairs (Defra) is the government department with responsibility for policies relating to Animal Production including Animal Health and Welfare in England. Defra's overarching aim is “to secure a healthy environment in which we and future generations can prosper” under which there are three priorities: 1) Secure a healthy natural environment for us all and deal with environmental risks; 2) Promote a sustainable, low-carbon and resource-efficient economy and 3) Ensure a thriving farming sector and a sustainable, healthy and secure food supply. A significant part of Defra’s work is concerned with preparedness for emergencies and contingencies which fall within the remit of environment, food and rural affairs. These activities are supported by a research programme costing in the region of 220 million Euros annually. This Global Network is specifically related to the third strategic priority of Defra, i.e. Ensure a thriving farming sector and a sustainable, healthy and secure food supply.

Defra has an animal health and welfare research programme, to provide evidence for policy development and implementation, with an annual budget in the region of 40 million Euros, funding research on TSEs, Bovine TB, Exotic Diseases, Zoonoses, Endemic Diseases, Animal Welfare, Veterinary Medicines and diseases of fish. This research programme supports Defra’s Animal Health and Welfare Strategy and its Evidence and Investment Strategy, which were both developed following stakeholder consultations. This research programme is managed centrally within Defra’s Farming and Food Group.

There are close working relationships with the other UK research funders including the Research Councils of the Department for Business, Innovation and Skills (especially the Biotechnology and Biological Sciences Research Council), with the animal health research budget holders in the devolved administrations in Scotland and Northern Ireland, with the Food Standards Agency and with the Wellcome Trust, a major charity involved in Biomedical research.

With the above mentioned wide-ranging research programme on animal diseases, and links to other UK research funders and involvement in the EMIDA ERA-NET and associated Collaborative

Working Group on Animal Health and Welfare research Defra is in a position to benefit from and make a significant contribution to the successful coordination the Global Network on Animal Health.

Dr Alex Morrow, BA, MVB, PhD, MRCVS (**Coordinator**) is a veterinary surgeon with twenty years experience in research, followed by four years in a research support capacity at Edinburgh University and six years in his current position in research programme management with Defra. He has also undertaken formal (certificated) training in project (Prince 2) and programme (Managing Successful Programmes) management. In his current position, where he has responsibility for an annual research budget of approximately 10 million Euros, including direct responsibility for the research programme on endemic diseases, he has established research advisory groups involving the various industry sectors. While in active research he obtained research funding of almost 1.5 million Euros over the ten year period up to 1999, including an EU (STD2/INCO-DC) grant of 295,000 Euros. He represented Defra on the Animal Sciences Committee of the Biotechnology and Biological Sciences Research Council and co-ordinates the UK Animal Diseases Research Funders Forum. He proposed the establishment of and currently coordinates the Collaborative Working Group on Animal Health and Welfare research under the EU Standing Committee on Agriculture Research and represents the CWG on the Executive Board of the European Technology Platform on Global Animal Health. With his experience in research, including research programme management, coordinating the EMIDA ERA-NET and associated SCAR CWG on animal health and welfare, having responsibility for significant research funding and working in an environment where he is supported by administrators he is well suited to coordinating this global network.

Dr Scott Sellers has 15 years experience working in core Defra and UK government research agencies, including the Veterinary Laboratories Agency (VLA) and the Institute for Animal Health (IAH). He has undertaken research activities, including work on immune responses to bovine TB and genetic resistance to infectious disease in poultry. He currently has management responsibility for the Defra research programme to cover Statutory and Exotic Diseases of livestock, working to an annual budget of 11 million Euros.

PARTNER 2: CHINA

Chinese Academy of Agricultural Sciences was established in 1957 and is the only national comprehensive agricultural research institute affiliated directly to the Ministry of Agriculture. CAAS is engaged in agricultural research in all fields apart from fisheries and tropical crops. At present, CAAS has thirty-nine research institutes across China as well as one graduate school and a publishing house.

CAAS has been involved, together with EU partners, in FP projects since FP2, with CAAS scientists engaged in about 27 past or current FP projects. CAAS has also actively helped to increase the public

awareness of EU-FPs in research bodies concerned, organising training courses to share with them the information and experience on the FP.

The Department of International Cooperation of CAAS (DIC/CAAS) is designated to promote international collaboration with partners worldwide and the members of the department have a wealth of experience to convene international meetings and training courses. DIC/CAAS leads a network of all provincial agriculture academies and shares the information collected with all members.

The four research institutes of CAAS listed below are engaged in research within the scope of “infectious diseases of livestock (including fish and managed bees) and those infections of livestock that may carry the risk of disease threat to human health”.

Lanzhou Veterinary Research Institute, Chinese Academy of Agricultural Sciences, founded in 1957, is one of the outstanding institutions involved in study of preventive veterinary medicine in China. Research on the epizootic diseases of grazing animal in the institute has been its major subject and taken advantage over China. The mandate of the institute is to focus on infectious and parasitic diseases of veterinary importance, to conduct the basic and applied research on pathogen characterization, diagnosis, immunity, immunoprophylaxis, to solve the problems encountered in the sustainable development of animal industry, and to make the animal industry develop rapidly and healthily.

In the institute, there are several laboratories designated by different authorities, e.g. State Key Laboratory on Veterinary Etiological Biology, National Foot and Mouth Diseases Reference Laboratory, Key Laboratory of Animal Virology of Ministry of Agriculture, Key Laboratory of Veterinary Parasitology of Gansu Province, etc.

On the viral diseases, the institute mainly deals with foot and mouth diseases, and the other viral diseases such as swine vesicular diseases, classical swine fever, BSE, rabies, viral diarrhoea, piglet transmissible gastroenteritis, sheep pox and goat pox, pest de petit ruminant, porcine reproductive and respiratory syndrome. In recent year, with the rapid progress of molecular techniques, some breakthroughs were accomplished on the phylogenetic analysis, genetically engineered vaccine and new diagnostic tools. The institute has contributed a great deal to the control of foot and mouth diseases in China and made the laboratory the centre for research, production and advice on foot and mouth disease.

Prof. Hong Yin DVM, MSc, Ph.D. He is the Deputy Director General of Lanzhou Veterinary Research institute and is in charge of the scientific affairs and international cooperation. Dr Yin's interests are characterization of arthropods and arthropod-borne pathogens, such as ticks, midge, insect, *Babesia*, *Theileria*, *Anaplasma* and *Borrelia*, African swine fever virus, Crimean-Congo haemorrhagic fever, Blue tongue virus, etc, interaction of pathogen-vector-host, mechanism for invasion of host cells, serological and molecular diagnostic tools for tick-borne diseases, detection of

pathogens in vector ticks, vaccine development for ticks, tick-borne diseases and infectious diseases. He has more than 20 years experience on the study of bovine and ovine babesiosis, theileriosis and anaplasmosis. He has been trained at Hokkaido University, Japan; Edinburgh University, UK; Utrecht University, The Netherlands and Research Center Borstel, Germany on molecular biology and immunology of ticks and tick-borne disease. He has participated in several EU project.

LIU Zaixin, Professor, MAgri, Ph D Dr Liu's interests are characterization of foot-and-mouth disease virus, swine vesicular disease virus, porcine reproductive and respiratory syndrome virus and porcine circo virus, etc, mechanism of virus-host infection and pathogenicity, interaction of pathogen-host, RNA virus reverse-genetics techniques, serological and molecular diagnostic tools for foot-and-mouth disease, swine vesicular disease, and porcine reproductive and respiratory syndrome.

FU Baoquan, Professor, MAgri, Ph D Dr Fu's interests are characterization and molecular identification of zoonoses pathogens, such as *Trichinella spiralis*, *Taenia multiceps* and *Toxoplasma*, interaction of parasite-host, mechanism for invasion of host cells, serological and molecular diagnostic tools for trichinellosis, toxoplasmosis, vaccine development for trichinellosis, taeniasis and toxoplasmosis.

JING Zhizhong, Professor, MAgri, Ph D Dr Jing's interests are: 1. Molecular biological and immunological research of pathogen and host focusing on mechanism of invasion, recognition and interaction in porcine and cattle disease. Studies centre on Cytokines, Toll-like receptors and other immunological signal molecules, as well as its application in the design of novel vaccine adjuvant and antiviral drug, etc. 2. Characterization of pathogens and development of diagnostic tools and vaccine for diseases, infected by Helminth, Virus of *Peste des petits ruminants* and Ovine smallpox, *Taenia solium* and other new emerge zoonoses, etc.

Harbin Veterinary Research Institute, Chinese Academy of Agricultural Sciences (HVRI) was founded in June 1948 as one of the China's first research institutes of veterinary medicine. Subordinated to the Chinese Academy of Agricultural Sciences (CAAS), HVRI has 483 faculty members, including one academician of the Chinese Academy of Engineering and 70 senior researchers.

The institute is made up of State Key Lab of Veterinary Biotechnology (SKLVB); Animal Influenza Centre of the Ministry of Agriculture and the National Avian Influenza Reference Laboratory (including PC3 facilities); Division of Avian Infectious Diseases; Division of Swine Infectious Diseases; Division of Large Animal Infectious Diseases; Division of Zoonosis; Division of Bacterial Diseases; Experimental Animal Centre; Basic Condition and Technology Services Centre.

In accordance with the Chinese Government's strategic directives and the principle of knowledge innovation, HVRI will become a base for innovative animal medicine, and is predominant and influential both nationally and internationally by: keeping track of leading-edge veterinary science;

undertaking key national scientific research programs; solving serious science and technology problems related to animal infectious diseases; promoting the development of theories and techniques on the prevention and control of animal infectious diseases.

Dr. Jianhua Zhou, MD, Ph.D, has 25 years experience in preventions and researches on human and animal infectious diseases. He has worked in the following institutions: a Chinese local CDC for human infectious diseases; a Japanese non-profit institute (Institute of Society for techno-innovation of Agriculture, Forestry and Fisheries) for researches on animal immunities; the University of Illinois at Urbana-Champaign in USA for researches on cross talking between cytokines and hormones. He is currently a professor in the Harbin Veterinary Research Institute, Chinese Academy of Agricultural Sciences, working on equine infectious diseases, especially on equine infectious anaemia. He currently has management responsibility for a program to study immunities to lentiviruses funded by the National natural science Foundation of China. He also responds for a sub-program of Chinese Key Research Programs on AIDS vaccine, working on animal models of lentiviral vaccines.

Collaborating institutes:

Shanghai Veterinary Research Institute (SHVRI), Chinese Academy of Agricultural Sciences

Shishan YUAN, DVM, PhD, Senior Scientist of Virology, Director, Department of Swine Infectious Diseases, Shanghai Veterinary Research Institute (SHVRI), CAAS.

2000, PhD, University of Minnesota, Advisors: Dr. Michael Murtaugh / Dr. Kay Faaberg. His research interests including 1. Molecular dissection of replication process of PRRS virus; 2. Epidemiology, diagnosis, and control of emerging and re-emerging swine viral diseases including JEV, BVDV, TTV, CSFV etc.; 3. Research and development of novel vaccines against PRRSV and PCV2.

Bee Research Institute, Chinese Academy of Agricultural Sciences.

Zhou Ting, PhD, Professor. Director of Key Lab. of Pollinating Insect Biology, Ministry of Agriculture, P. R. China, and director of Bee Protecting and Biological Safety Lab., Bee Research Institute, Chinese Academy of Agricultural Sciences. She got her PhD in 2004 supervised jointly by Dr. Qingwen Zhang from China Agricultural University and Dr. Zachary Huang from Dept. Entomology Michigan State University, US.

Major in honeybee pathology and control of bee diseases and pests, especially in Varroa mite control. Her research interests are 1. Study on toxicology, physiology and biochemistry, toxicology and pathology of honey bee diseases and pests; 2. Study on the forecast and alarming system of honey bee diseases and pests; 3. Study on diagnosis of honey bee diseases and pests; 4. Research on high

efficient, low toxic and low residual medicines for controlling pathogen and pest in bees; 5. Study on impact of transgenic plants on honey bee

PARTNER 3: FRANCE

INRA (National Institute for Agricultural Research) is a French mission-oriented public research institution under the joint authority of the Ministry of Higher Education and Research and the Ministry of Agriculture and Fisheries. Its activity is defined through a quadrennial contract with these two ministries

The research conducted at INRA concerns agriculture, food, nutrition and food safety, environment and land management, with particular emphasis on sustainable development. The overall budget of INRA amounts to about €760 million (+ €267 million research contacts), with 8532 staff members (as of 1 January 2010). INRA has been involved as a partner or coordinator in 144 projects financed under FP6, including the following ERA-NETs: ERAPG: (plant genomics), EUPHRESCO (Coordination of European Phytosanitary Research), WOODWISDOM (Networking and Integration of National Programmes in the Area of Wood Material Science and Engineering) and EMIDA (Coordination of European Research on Emerging and Major Infectious Diseases of Livestock), CORE ORGANIC, FORSOCIETY. Moreover, the French Institute of Biodiversity, a joint research unit of INRA is coordinator of BIODIVERSA (Biodiversity research). INRA coordinates ARIMNet and RURAGRI. It also is coordinator, on behalf Ministry of Research and Education, of the joint programming initiative “Agriculture, food security and climate change”.

Research programmes are managed by INRA in 14 specialized research divisions, one of which being dedicated to Animal Health (30 M€ annual budget, with 176 INRA scientists and 170 from partner institutions). The total number of permanent positions affiliated to the Animal Health Division of INRA is 668 (2010). Additionally, 96 young scientists are in various PhD programmes. The Animal Health Division, in synergy with the Microbiology and the Food Chain Division and the Animal Genetics Division, is currently supervising 113 research projects that are conducted in 21 research and experimental units. Over 75% of the research units of the Animal Health Division are joint research laboratories with partner institutions. The strong partnership of INRA with the support and investigation laboratories of ANSES (French food and environment safety agency, formerly AFFSA), as well as with the veterinary schools' laboratories, should be highlighted. Priority is placed on infectious and parasitic diseases of animals that have a potential impact on animal industry and on veterinary public health. In animal health and related fields, INRA has coordinated the Network of Excellence EADGENE (European Animal Disease Genomic Network of Excellence for Animal Health and Food Safety).

Research conducted in INRA Animal Health Division involves researchers or academic personnel employed by other French research or higher education institutions: the four National Veterinary Schools (Maisons-Alfort, Toulouse, Lyon, Nantes), the French food and environment safety agency (ANSES), CIRAD (overseas agricultural research), and other institutions and universities in the field of medical and fundamental sciences. Overall, the Animal Health Division is involved in Global Animal Health Platform, and different NoE: EPIZONE, MedVetNet and EDEN.

In order to attain greater international visibility, CIRAD and INRA have also recently linked into a public group of interest called the French Initiative for International Agricultural Research (IFRAI). INRA, CIRAD, the four French schools of agriculture engineering and Toulouse Veterinary School have linked in 2010 in a consortium called Agreenium and the international affairs divisions of CIRAD and INRA have merged under Agreenium supervision.

Thierry PINEAU, PharmD, PhD, Senior Scientist at INRA (Director of Research) will represent INRA and the French Ministry of Higher Education and Research in the Project Consortium and will be involved in Work-package 2. He is currently leading the Animal Health Division which is active in the EMIDA ERA-NET. Indeed Jean De Rycke led Work-package 2 which covers a similar area to that of WP2 in the present project proposal. He is a specialist of animal therapeutics (molecular pharmacology and toxicology) with 24 years of experience in research and project management. He has been leading a research laboratory in Toulouse before being appointed Head of Division in 2009. Additionally, starting in 2011 he will be leading a large coordination programme at INRA devoted to the global management of animal health.

Christian DICROT, DVM, PhD, Senior Scientist at INRA (Director of Research) is deputy-head of the Animal Health Division, he is currently leading a laboratory in the field of epidemiology. He has 25 years experience in the field of veterinary epidemiology. In the last 13 years, in collaboration with modellers and biochemists, he has conducted at the French and European levels, various epidemiological studies and modelling on transmissible spongiform encephalopathies in cattle and sheep. A Member of the TSE BSE ad hoc group of the EU Commission between 2000 and 2003, he attended the BioHaz panel of EFSA from 2003 through 2006 and is now a member of various working groups for this panel. At the French level, he is a member of the TSE expert panel of the ANSES (French agency for food and environment safety). He will lead Work-package 2 which covers a similar area to that of WP2 in the EMIDA ERA-NET.

PARTNER 4: BRAZIL

The **Brazilian Agricultural Research Corporation (Embrapa, Empresa Brasileira de Pesquisa Agropecuária)** was established in the year 1973, linked to the Ministry of Agriculture, Livestock and Food Supply, with the mission of providing feasible solutions for the sustainable development of the

agricultural sector through knowledge and technology generation and transfer. From the very beginning, the corporation has generated and recommended more than 9,000 technologies for Brazilian agriculture, reducing production costs and helping Brazil to increase the supply of food while, at the same time, conserving natural resources and the environment and diminishing external dependence on technologies, basic products and genetic material. Embrapa is present in almost all the states of the Union, each with its own ecological conditions, networking through 41 Research Centers distributed among the several regions of Brazil and classified as Service Centers, Product Research Centers, Basic Themes Research Centers and Agro Forestry Research Centers or Centers for Agricultural Research in Brazilian Ecological Regions.

Embrapa coordinates the National Agricultural Research System, which includes most public and private entities involved in agricultural research in the country. Among the Embrapa's Product Research Centers, 7 of them deal directly with animal health & production: Embrapa Dairy Cattle, Embrapa Beef Cattle, Embrapa Cattle-Southeast, Embrapa Swine & Poultry, Embrapa South Animal Husbandry & Sheep, Embrapa Aquaculture & Agricultural Systems, and Embrapa Goats & Sheep.

There are approximately 8,500 employees at Embrapa - of which more than 2,100 are researchers and almost 80% with doctoral degrees - developing researches in the areas of animal and plant production and sanity, biotechnology, clean technologies, sustainable use of environmental resources, biofuels and biosafety, and the assessment of social, economic and environmental impact of technologies, among others. The corporation also offers expertise on global warming and climate changes; nanotechnology applied to agriculture and livestock production; functional genomics, metabolomics and proteomics; modeling applied to agricultural systems; functional food and food safety; and sanitary barriers.

The induction and funding of R&D projects at Embrapa occur through macro-programs with the purpose of composing and managing a strategic portfolio of projects with high technical and scientific quality, in order to accomplish the organization goals, capable of inducing and funding the establishment of very diverse networks, varying from very specific and compact nets to large ones such as those comprising between 120 to 550 researchers from several institutions, including research institutes and Universities, as well as producers and enterprises. Among these large inter-institutional networks lead/funded by Embrapa we may point out "Technologies for aquaculture", "High quality beef", "Measuring the environmental, social and economic impacts of beef industry", and "Genomics for the advancement of animal breeding and production", all highly strategic themes in the Brazilian research scenario.

Embrapa, the largest agricultural research company in Brazil, extends its actions abroad as well, through Virtual Laboratories of Embrapa Abroad (Labex) in North America (USA), Europe (France, United Kingdom, and The Netherlands), and Asia (South Korea), together with Embrapa Business

Offices Abroad located in Africa and in Latin America (Venezuela - and Panama in the near future), which could facilitate the interaction among EU groups and Brazilian, Latin American, and African groups. For the organization, it is rather important to maintain projects in International Cooperation in order to perfect knowledge of technical and scientific activities and to share knowledge and technology with other countries.

Embrapa formally develops scientific and technological cooperation and exchange activities with more than 150 research institutions and international organizations located in about 50 countries. In South America, Embrapa participates in cooperative programs with national research agencies from Argentina, Chile, Paraguay and Uruguay (Southern Cone) as well as Bolivia, Colombia, Ecuador, Guyana, Peru, Suriname and Venezuela (South America tropics). In Latin America and in Africa, Embrapa has also been providing assistance and technical support to governmental institutions from Bolivia, El Salvador, Nicaragua, Angola, Namibia, Mozambique, and Zimbabwe in the design and execution of development programs and projects for the agricultural sector.

Ana Christina Sagebin Albuquerque – head of Embrapa’s Coordination Office of Integration and Articulation in R&D, formerly she was a member of the Board of Advisors of Embrapa’s Director-President and Technical Deputy of Embrapa Wheat Research Unit. She obtained her MSc degree in Agronomy/Genetics and Plant Breeding at the Federal University of Rio Grande do Sul, Brazil, and studied the genetics of landraces as bases for locally based conservation and valuation of genetic resources at the University of California, USA, working in Turkey and in the USA.

PARTNER 5: NEW ZEALAND

Foundation for Research, Science & Technology

The Foundation for Research, Science & Technology is the main science funding agency for New Zealand. It invests approximately €250 million a year in science and technology research on behalf of the New Zealand Government. The investments cover a range of areas that support New Zealand’s economy, environment and society.

A key area is research into solving the productivity, sustainability, product quality and market access challenges that face New Zealand’s bio-economy including animal health. The foundation is investing in research on controlling diseases in cattle and sheep including bovine TB, Johnes disease, mastitis and internal parasites. One of the strength’s of the New Zealand research programmes is the close relationship with industry in the development of the research priorities and the uptake of results.

International linkages are important to New Zealand to ensure their scientists are both benefiting from and contributing to the global issues.

Dr Prue Williams (BAgrSci(hons.), PhD) is the Chief Science Advisor to the Foundation for Research, Science & Technology. She has a twenty year career in research followed by six years of research management experience. Her current role is to provide advice on science quality, international linkages and research capability that is used in funding decisions. Dr Williams has been involved with EU Framework 6 and 7 Programmes since 2003 as an evaluator and expert. She was part of a New Zealand consortium that participated in a very successful FP6 Specific Support action project (Food FRENZ) that brought together researchers from Europe and New Zealand to develop collaborative links on animal welfare, sustainable production, food safety and personalised foods.

PARTNER 6: Argentina

Ministry of Science, Technology and Productive Innovation (MINCYT)

The Ministry of Science, Technology and Productive Innovation established policies and coordinates actions aiming to strengthen the country's capacity to give answer to priority sectoral and social problems in order to improve society's quality of life. It also contributes to increase the productive sector competitiveness, based on the development of a new production patterns considering goods and services of greater technological content and promotes innovations in order to substitute imports.

The scientific and technological links developed by the International Relations National Directorate of MINCYT in the multilateral as well as in the bilateral fields and the specific project allow scientific research promotion and productive innovation between Argentinean and foreign research groups through joint R+D projects, Workshops, seminars and human resources development grants.

Thanks to the aforementioned agreement, Argentina has started to participate in several technological cooperation programmes, such as Food-N-Co (Improving the participation of INCO Countries in Food Quality & Safety Priority Calls); AlcueFood, coordinated by Argentina in Latin American; Go Global (Global Platform on Emerging Risk on Food and food Chain); INCONET, which aims to increase the cooperation between national government and agencies of the EU members states to deepen the impact of national cooperation programmes in S&T; AL ERAS, which aims to promote the participation of Latin American SMEs in health, food, agriculture, biotechnology, ITC's, environment and climate change ; LAC ACCESS, through which a map of R+D high quality institutions in Latin American and the Caribbean related to the 7^o Frame Programme field of interest is made.-

The last FAFB related project is BIOTECH (MERCOSUR/EU), of which the objective is to promote agricultural biotechnology development and exploitation as support to the increase of competitiveness of regional products on the international markets.

Eng. Águeda MENVIELLE: She holds an Agricultural Engineer grade with a Master Degree in Agricultural Economy. Currently she is the head of the National Direction of International Relations at MINCYT. She has a long track record promoting and coordinating International Cooperation in Science, Technology and Innovation projects between Argentina and European Union. Among other activities, she is the National Coordinator of RECYT-MERCOSUR, CyTED, IBEROEKA and other projects and initiatives. She is also an active member and workpackage leader in the EULARINET (INCO-Net for bi-regional dialogue between Latin America and the EU). She was Professor of Economy at the University of Bahía Blanca and author of more than 50 research articles in diverse journals. Her wide-ranging professional network developed and consolidated over many years is a key factor in the ability to mobilise the range of collaborations anticipated in this proposal.

Argentinean National Focal Point for S&T Cooperation with European Union and FP7

International evaluator of S&T cooperation Projects and Program

Dr Eduardo J. Trigo Obtained his PhD in agricultural economics in 1972 from The University of Wisconsin (USA). He was Director of Research at the International Service for National Agricultural Research, ISNAR. Later he became Director of Science and Technology at the Inter-American Institute for Cooperation in Agriculture, IICA, developing and monitoring international research networks in the field of agriculture and food and linking research institutes throughout the Americas. More recently, he worked on biotechnology policy in developing countries, and worked as a consultant for OECD, FAO and The Inter-American Development Bank, IADB, among others.

Presently he serves as the Scientific Adviser of the International Relations National Directorate – MINCYT. He has published extensively on agricultural research policy and management issues and more recently on the evaluation of the economic impact of biotechnological applications in development countries.

Partner 7 United States

United States Department of Agriculture, Agriculture Research Services.

The mission of animal production and protection national programs of ARS is to improve the health, well-being, and efficiency of livestock, poultry, and aquatic food animals to ensure a productive and safe food supply. Emphasis is placed on germplasm characterization, improvement, and conservation; understanding the mechanisms of disease resistance, and the development of tools to prevent, control, or eradicate diseases that threaten our food supply or public health; and identifying and developing sustainable systems for production of high quality meat, milk, and eggs.

ARS is recognized worldwide as a leader in animal health research that delivers effective solutions to prevent and control animal diseases that impact agriculture and public health. The mission of the

program is to conduct innovative cutting-edge research, which delivers effective and practical solutions to agricultural problems of high national priority. Details of the programme can be found on: http://www.ars.usda.gov/research/programs/programs.htm?NP_CODE=103

Key Person involved:

Cyril Gerard Gay, D.V.M., Ph.D National Program Leader, Animal Health and Safety in Animal Production and Protection.

Dr. Gay obtained a B.Sc. in Chemistry and a Doctor of Veterinary Medicine from Auburn University, and a Ph.D. in Microbiology from The George Washington University. Dr. Gay has worked in the animal health field for the last 20 years holding several positions of increasing responsibility in the federal government and the pharmaceutical industry. Dr. Gay was a practicing veterinarian in Louisiana and Florida before joining the federal government in 1986. As Chief, Biotechnology Section, Centre for Veterinary Biologics (CVB), United States Department of Agriculture (USDA), Dr. Gay developed the procedures for licensing molecular vaccines that led to the first license for a live recombinant vectored vaccine. Dr. Gay joined SmithKline Beecham Animal Health in 1994 and Pfizer Animal Health in 1996 where he led several cross-functional teams responsible for the development of veterinary vaccines. As Director, Global Product Development, Pfizer Inc., he developed strategic and tactical plans that interfaced R&D, clinical development, manufacturing, marketing, and product life-cycle management. Dr. Gay joined the Agricultural Research Service (ARS), USDA, in 2003. Dr. Gay currently holds the position of Senior National Program Leader and provides program direction and national coordination for the department's intramural Animal Health National Research Program, comprised of 124 scientists located in 11 research locations throughout the United States, including: the National Animal Disease Centre (NADC), Ames, Iowa, the Avian Diseases and Oncology Laboratory (ADOL), East Lansing, Michigan, the Meat Animal Research Centre (MARC), Clay Centre, Nebraska, the Southeast Poultry Research Laboratory, Athens, Georgia, the Plum Island Animal Disease Centre, Orient Point, New York, the Animal and Natural Resources Institute, Beltsville, Maryland, the Arthropod-Borne Diseases Research Unit, Manhattan, Kansas, and the Poultry Research Unit, Mississippi State, Mississippi.

PARTNER 8: MEXICO

National Council of Animal Health is an advisory body to the Federal Ministry of Agriculture, Livestock and Rural Development, Fisheries and Food (SAGARPA) of Mexico. It works on requirements for the identification, planning, programming, operation, monitoring, control and evaluation of animal health programs, including public health. It is a forum where the different sectors involved in animal production and health converge.

The proposals and recommendations that are generated from the analysis of problems and opportunities discussed from different viewpoints are sent to SAGARPA, universities, research institutions, producers, industry and related institutions and professional organizations. CONASA was established in order to address the significant need for a body at national level, consultation and advice on animal health, where all sectors involved could participate in animal health issues. The essence of the Council is to promote closer relations and strengthen working relationships among industry, academia, producer organizations, organizations and industry specialists. The seat of CONASA was installed in the Faculty of Veterinary Medicine and Zootechnics of the National Autonomous University of Mexico (UNAM).

CONASA is a national advisory body, collegial, independent, with national and international recognition, guiding society and the Mexican Federal Government in the preservation and improvement of animal health, their environment, the safety of goods and zoonoses. It is composed of specialists of different disciplines, that issue expert opinions and recommendations that are transparent, objective, applicable, ethical and timely, in order to maintain and promote animal health and issue scientific opinions in the interests of society.

CONASA is composed of more than 420 experts in the fields of animal health, public health and production, including representatives from: Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food, the Ministry of Health and the Ministry of Environment and Natural Resources, among other Federal bodies; Faculties and Schools of Veterinary Medicine and Animal Science; National Institute of Agricultural and Forestry Research and other research institutes; National Confederation of Livestock and other livestock producers associations; Federation of State Veterinary Medical Associations of Mexico; Mexican Veterinary Academy and other professional groups;

For carrying out its functions CONASA has the following bodies: Board and 22 Committees and Subcommittees plus focus Groups on specific issues and priorities in health and animal production. It has a General Coordination, Administrative body that serves as a liaison between the Board, Committees and the appropriate authority, providing logistical support.

Juan Garza, Founding member of CONASA where has acted as First Vice-president, Executive Secretary, Coordinator of the Zoonoses Committee. DVM from UNAM, M.Sc. from University of Guelph in Canada, has been Professor of Immunology at the Faculty of Veterinary Medicine (FMVZ) of UNAM for 45 years. He became Associate Dean, Dean at the FMVZ and Coordinator of the University Academic Council in Biological and Health Sciences. In the Mexican Federal Government has worked at the Ministry of Health as General Director of the Institution responsible for the production of human vaccines, antisera, blood derivatives and diagnostic reagents, later Director of Zoonoses and recently as Executive Secretary of the National Bioethics Commission. At SAGARPA was General Director of PRONABIVE, the governmental producer of vaccines and reagents for the

national animal health programs. Later he was appointed CEO of animal health. In the field of Social Security was Director of the Inter-American Center for Social Security Studies where he worked with all Social Security institutions of the Americas. He is Director of the three Zoo parks in Mexico City, a Consulting expert of international organizations PAHO, FAO, IICA, UNIDO. President of the Mexican Federation of Veterinarians, Mexican Veterinary Academy, Director of the Mexican Society of Public Health and Secretary of the Inter-American Society of Veterinary Public Health. His interdisciplinary and intersectorial expertise has allowed him to undertake the task to establish and develop the “One Health” concept in Mexico at the academic and governmental levels.

Ricardo Flores-Castro, DVM from UNAM, Masters from the Royal Tropical Institute of Hygiene; Central Veterinary Institute for Animal Health; National Institute of Public Health. The Netherlands, Ph.D. from University of Cornell, USA.

During 45 years has worked in research, teaching and the Veterinary Pharmaceutical Industry. Director of Animal Health Programs at SAGARPA, Director of Animal and Public Health research at the National Institute of Agriculture, Livestock and Forestry Institute (INIFAP), SAGARPA. Now he is Director of the Research Center of Animal Microbiology, INIFAP, SAGARPA. Professor of Microbiology at UNAM, Coordinator of Postgraduate Studies and Research. Litton Laboratories, Director of Research and Development. Former Vice-president of the National Council of Veterinary Pharmaceutical Laboratories. President of the Mexican Veterinary Academy, Vice-president of CONASA.

Francisco Suárez Güemes, DVM from UNAM, M. C and Ph.D from Colorado State University USA. 30 years experience as Professor in Microbiology and Infectious Diseases, international experience as consultant of IICA and OAS, at present acting as Secretary of Planning, FMVZ, UNAM, Vice-president of CONASA. Former Coordinator of Postgraduate Studies in Animal Health and Production, UNAM, Head of the Department of Microbiology and Immunology, President of the Mexican Veterinary Academy, has received several awards in Mexico and abroad for his research work in bacterial animal diseases.

José Angel Gutiérrez Pabello, DVM UNAM, M. Sc. University of Surrey, UK, Ph. D. Texas A&M University, U.S.A., Head of the Department of Microbiology and Immunology, FMVZ, UNAM. Several important awards for his research work in Mexico and abroad. Associate Professor in Immunology, Bacteriology, Bacterial pathogenesis and Infectious diseases, UNAM.

Luisa Pamela Ibarra, DVM from UNAM, specialising in Bovine Animal Production. Coordinator of control and eradication of Bovine Tuberculosis and Brucellosis in the State of Sonora, Mexico. Consultant SAGARPA – Inter-American Institute for Cooperation in Agriculture (IICA). Director of Animal Disease Control Programs, Direction of Animal Health, SAGARPA México. At present Consultant in Animal Health, National Livestock Association. Professor of Tuberculosis Control

courses in Mexico, Chile, Guatemala and Nicaragua. At CONASA she is Coordinator of the Committee on Bovine Health, member of USAHA, USA in the Tuberculosis Expert Group. Member of the bi-national USA-Mexico Tuberculosis Committee.

Laura Arvizu, DVM from UNAM, Political Science and Public Administration degree also from UNAM, M. Sc. in Public Administration, National Institute on Public Administration, Specialist in Public Policies. General Coordinator of CONASA where she acts as liaison between the Board, Committees and the appropriate authority, providing logistical support. Professor of Legal Matters, FMVZ, UNAM. Technical Secretary, Direction of Zoo Parks, Mexico City. Manager, Mexican Federation of DVM's.

PARTNER 9: DENMARK

The Directorate for Food, Fisheries and Agri Business (DFFAB) in the Ministry of Food, Agriculture and Fisheries holds responsibility for initiation, coordination and funding of research and development (R&D) in food, agriculture and fisheries. The Directorate cooperates with the Ministry of Science, Technology and Innovation and related Research Councils in relation to initiation of specific research programmes in open calls.

Research on infectious animal diseases is mandated to the National Veterinary Institute (NVI), at the Technical University of Denmark (DTU). The National Veterinary Institute conducts research and gives advice on infectious animal diseases in farm livestock and companion animals, serves as national reference laboratory and as international reference laboratory for the EU and OIE (World Organisation for Animal Health) and gives advice to EFSA (European Food Safety Authority) in a number of areas.

Niels Gøtke, Head of R&D Division, DFFAB, is the responsible person and has entrusted DIAS to facilitate its participation to the project; it is anticipated that a representative from DFFAB will represent Partner 9 on the global net's Network Consortium.

Kristian Møller, Director, The National Veterinary Institute, will together with a representative from DFFAB, represent Denmark in MG meetings and act as deputy leader in Wp-3. Kristian Møller has more than 15 years experience in diagnostics and research in animal infectious diseases. He has managed several research projects on major animal diseases and has been appointed as national and international expert in several governing boards.

PARTNER 10: GERMANY- FZJ**Forschungszentrum Jülich (FZJ), Projectmanagement Jülich, PTJ**

PTJ is a German research agency ("Projektträger") within the Research Centre Juelich (FZJ) which undertakes the management of R&D and innovation programmes of various contractors representing the national government; mainly the Federal Ministry of Education and Research (BMBF), the Federal Ministry of Economics and Labour (BMWA), the Federal Ministry for Environment (BMU). Additionally, FZJ is working on behalf of the regional governments of some federal states ("Bundesländer"). It also hosts several national contact points (NCP) for the 7th Research Framework Programme of the EU, among others for the thematic priority Life Sciences, Genomics, and Biotechnology for Health. Within the German Biological Research and Technology framework programme, PTJ's Division for Biology (BIO) is responsible for several life sciences programmes, among others in the fields of plant genomics, microbe genomics, neurosciences, proteomics, bioinformatics, tissue engineering, nanobio-technology, sustainable bioprocessing, food and nutrition sciences, and biological safety. Since 2001 PTJ-BIO is responsible for the technical implementation of the national programme Systems of Life - Systems Biology on behalf of the programme-owner BMBF. For that purpose, FZJ is formally authorized ("beliehen") by the ministry to independently conduct all tasks related to the programme management (i.e. launch of calls, advice and support of potential applicants, evaluation, contract negotiations, follow-up, etc.). Beyond this, FZJ assists the ministry in planning, analysing, updating and evaluating/monitoring the programme as well as in supporting dissemination and exploitation of results and governing issues. Although FZJ is in charge of all implementation aspects of the programme, political and strategic orientation as well as any final decisions are taken at the level of BMBF. At European level, FZJ is together with P 3 (BMBF) already a partner in other ERA-NET activities in life sciences (e.g. EUROTRANS-BIO, ERANET Plant Genomics, PATHOGENOMICS, ERA-IB and ERASYS-Bio).

Dr. Stefan Lampel is Head of Division "EU & Internationales" of the Project Management Organization Juelich (PTJ) at the Forschungszentrum Juelich (FZJ). He has a PhD. in Biology (Universität des Saarlandes, Germany). He worked as post-doc at the German Cancer Research Institute and as Director for Ingenium Pharmaceuticals. Since 2004 Dr. Lampel is scientist at PTJ responsible for the management of EU-activities.

Dr. Petra Schulte joined the FZJ in 2002 and is involved in scientific programme management. She obtained her PhD in Zoology/Neurobiology at the Heinrich Heine University Düsseldorf, Germany, and has worked for the past 7 years as a scientist at the FZJ. In the Division "EU & Internationales" of the Project Management Juelich she is involved in several transnational EU-activities.

PARTNER II: CANADA

The Canadian Food Inspection Agency (CFIA) is a regulatory agency responsible for the safety of Canada's food supply and the protection of plant and animal health. Through the delivery of inspection services, the Agency: (1) Manages public health risks with the food supply and the transmission of animal diseases to humans; (2) Protects the animal and plant resource base; and (3) Provides consumer protection and access to domestic and international markets. The vision of the CFIA is to excel as a science-based regulator, trusted and respected by Canadians and by the international community.

Scientific activities at the CFIA include a wide variety of aspects: Risk Assessment (Biotechnology, Plant Health, Animal Health), Research (Animal Health, Plant Health), Diagnostic Testing (Animal Health Import, Export, Domestic, Food Safety), Surveillance (Plant Health, Animal Health), Security Science (Foresight and Scanning Food Vulnerability Assessments), and Partnerships (with various levels of government, industry, universities, and international organizations).

Current research work, relevant to animal and public health, include projects dealing with novel Influenza A H1N1 (transmission, diagnostic technology development, vaccine studies), anthrax (improved diagnostic technologies, typing, epidemiology), avian influenza (improved diagnostic technologies), rabies (epidemiology and control), Transmissible Spongiform Encephalopathies (BSE, CWD, Scrapie), Foreign Animal Disease (FMD, Classical Swine Fever, Blue Tongue), bovine tuberculosis and Brucellosis (improved diagnostic technologies). These projects are the result of extensive national and international collaborations.

As part of CFIA's international role in animal disease diagnosis and control, several of its laboratories function as OIE Reference Laboratories for a variety of diseases.

CFIA LEAD:

Dr. Primal Silva. DVM, PhD, is a veterinarian and a PhD scientist with several years of post-doctoral training. He obtained his PhD from the University of Sydney, Australia, in 1987 and conducted his post-doctoral studies at McMaster University and at the Ontario Veterinary College, University of Guelph. From 1991-1993, he worked as an Assistant Professor at the University of Guelph before joining AAFC as a Senior Veterinary Biologies Evaluator in 1993. Dr. Silva continued in this position until 2000 and then worked as Chief, Science and Technology until 2005 at CFIA. In 2005, Dr. Silva joined AAFC as a Science Director, Research Branch and then worked as the Acting Director General responsible for managing Food Safety and Quality research from 2006-2008.

In 2008, Dr. Primal Silva was appointed to the position as CFIA Executive Director, Science Strategies Directorate and as Executive Director of the Animal Health Science Directorate and Research &

Development Division. He is also a contributing member to numerous committees and working groups at domestic and international levels.

CFIA COLLABORATORS:

Dr Shane Renwick, DVM, MSc graduated from the Ontario Veterinary College (OVC) in Guelph, Ontario, Canada. Following a decade as co-owner of a mixed practice in Southern Ontario he joined Agriculture Canada in the Food Production and Inspection Branch, a core component of what has since become the Canadian Food Inspection Agency (CFIA). Dr. Renwick completed his MSc in Epidemiology in the Department of Population Medicine at OVC and subsequently worked for the federal Health of Animals Laboratory in Guelph designing and conducting collaborative epidemiological studies including an investigation of *E. coli* O157:H7 in humans and dairy cattle on farms in Southern Ontario. Dr. Renwick moved to headquarters in Ottawa after taking a position as an epidemiologist in Animal Health Risk Assessment. In 1997 Dr. Renwick became Chief of Science and Technology in the newly created CFIA where he was responsible for the coordination of research activity. In 1999 he became a Special Advisor, Biological Sciences in the Research Branch of Agriculture Canada, returning to the CFIA in 2001 as Director of Animal Health Laboratory Services. Among other duties, Dr. Renwick was responsible for the coordination of the National Federal-Provincial Transmissible Spongiform Encephalopathy (TSE) Veterinary Diagnostic Laboratory Network and the National Avian Influenza Surveillance Network, and project manager on a foreign animal disease diagnostic test development project in CFIA under the Chemical, Biological, Radiological-Nuclear Research Technology Initiative (CRTI) of National Defence. In May, 2007 Dr. Renwick began an assignment as Director, Animal Health Science Foresight and led the development of the project proposal for the CRTI-funded Foresight for Canadian Animal Health Project (Fore-CAN) with seven partner organizations. Since April, 2009 Dr. Renwick has been Acting Director, Animal Health Science at the CFIA.

Dr Jose Lopez, DVM, MSc, PhD is a veterinarian and holds MSc and PhD degrees, in veterinary bacteriology, from the University of Guelph, Ontario. He has been Professor and Chairman of the Department of Bacteriology, Veterinary College, UNAM, Mexico; Head of Bacteriology, Animal Pathology Laboratory, Agriculture Canada, Sackville, NB; Head, Microbial Food Safety Laboratory, Centre for Animal and Plant Health, Charlottetown; Head of Bacteriology and International Project Manager, National Centre for Foreign Animal Disease, Winnipeg; Chair of the Animal Care Committee, Canadian Science Centre for Human and Animal Health, Winnipeg; and General Coordinator of the Security and Prosperity Partnership of North America (SPP) Harmonization of Diagnostic Tests Program, in the North American Animal Health Laboratory Network. His research activities have included various aspects of the pathogenic mechanisms of bovine and avian septicaemic *E. coli*, *Mycoplasma ovipneumoniae*, *Listeria monocytogenes*, *Salmonella enteritidis* and *Burkholderia mallei*, microbial food safety in the swine industry, and technology development for the

diagnosis of CBPP, CCPP and equine glanders. Dr. Lopez is currently on assignment as A/National Manager of Animal Health Research and Partnerships of the Canadian Food Inspection Agency.

PARTNER I2: RUSSIAN FEDERATION - MGAVM and B

The Moscow State Academy of Veterinary Medicine and Biotechnology named after K.I.Skryabin (MGAVM and B)

Moscow State Academy of Veterinary Medicine and Biotechnology named after K. I. Skryabin, one of the oldest higher educational establishments, was founded in Moscow in 1919.

The Academy is an educational, research and commercial complex. It trains highly skilled specialists, scientific and teaching staff. The Academy is involved in fundamental and basic research, experimental and production developments in veterinary medicine and zootechnology, biotechnology and ecology in veterinary medicine, commodity expertise, marketing and technology of food-stuffs and goods of animal origin.

The employees of 41 of the different departments of the academy are involved in research work, more than 500 in total (including 200 of postgraduate students and) and 600 students. Every year over 5000 students, 200 post graduates and applicants for a scientific degree study at the Academy and over 1500 zooveterinary specialists and teacher of higher agricultural school take refreshes courses.

Scientific schools of the Academy and their representatives have merited universal acknowledgements in veterinary, zootechnical and biological sciences of both our countries and foreign ones.

The Academy was incorporated into the European Association of Agricultural Higher Educational Establishments at the International Congress in May in the 2000 in Prague.

The Academy has all necessary teaching, production and experimental facilities. There are 7 teaching and laboratory buildings, clinics, a vivarium, garage and other premises in the campus. Forty one departments, four research laboratories and clinics are furnished with modern equipment.

Nowadays the academy is under the jurisdiction of the Department for Scientific-technological politics and Education of the Ministry of Agriculture of Russian Federation.

In the anatomical building there are departments of anatomy and histology of animals, pathological physiology and pathological anatomy. In the clinical building there are departments of veterinary surgery, internal noninfectious diseases, internal non-contagious diseases, parasitology and invasive diseases in animals, clinical diagnostics and diseases of young animals. In the laboratory building there are departments and laboratories of infectious circle as follows: epizootiology,

infectious diseases, microbiology, virology and others. The departments are equipped with modern arrangements; all lecture halls have multimedia equipment.

The Academy is the coordination organization of the Russian Technology Platform «ANIMAL HEALTH and WELFARE» led by Professor Panin. A Member of the Russian Academy of Agricultural Sciences and Director of all Russian States Center for Quality and Standardization of Veterinary Drug and Feedstuff). Russian Technology Platform has a wide range of regional network, which integrates profile institutes, companies and organizations. The Russian Technology Platform «ANIMAL HEALTH and WELFARE» involved in solution of farm animal health and welfare problems, prophylaxis and treatment of infectious animal diseases, new line in prophylaxis and treatment of farm animals diseases, searching of innocence and ecology safety means for therapy of animals diseases, developing and production of a new vaccines, diagnostic and drugs for veterinary, optimized control and standardization of veterinary drugs, developing and production of a new vaccines and drugs for defense against radiation, developing and production of a new vaccines and drugs for suppression of malignant tumors, new line in prophylaxis and treatment of animal cancer by the help of parasites.

Dr Fyodor Vasilevich, Rector of Academy, Distinguished Figure of RF Higher School, RASKH academician, Doctor of Veterinary Sciences and Professor.

Professional interests: Parasitology, Biotechnology, and infectious disease of animal.

Alexander Panin, Academician of the Russian Academy of Agricultural Sciences, Head of the Russian Technology Platform "ANIMAL HEALTH and WELFARE", Head of the Institute for Control, standardisation and certification of veterinary preparations under the Ministry of Agriculture of the Russian Federation.

Dr. Larisa Gnezdilova, Head Department of Clinical science, Professor, doctor of science (veterinary). Professional interests: Biotechnology\ vet. diagnostics\ infectious diseases of animals.

Alexander A. Sidorchuk, DVM, PhD, DVSc, Professor, Department of Veterinary Epidemiology & Infection Diseases, Chairman. Field of interest: Epidemiology and Preventive Veterinary Medicine, Veterinary Microbiology and Immunology. Research Interests: Veterinary Epidemiology and Control of anaerobic diseases of animals, infectious disease of ruminant digits. Clinical and laboratory diagnosis of diseases of cattle and sheep.

PARTNER 13: RUSSIAN FEDERATION - ICISTE**International Centre for Innovations in Science, Technology and Education (ICISTE)**

The International Centre for Innovations in Science, Technology and Education was founded in November 2006 as a result of the constant raising demand for an institution that would unite specialists in the sphere of international S&T cooperation. The Center leads in the development and implementation of newly created S&T and educational programmes, in particular for international S&T cooperation with Russia. ICISTE plays an active role in several S&T expert councils and panels within Russia.

The analytical centre ICISTE comprises highly qualified experts, specialized in the development, planning and implementation of international project development international S&T and educational programmes in the Russian Federation. ICISTE's experts participate in programmers and expert groups of international bodies, such as CRDF, OECD, ISTC, World Bank, New Eurasia. In the last two years specialists of the ICISTE participated in many national and international R&D programmers, being responsible for analytical and organizational parts of projects, such as:

- Analysis of the leading government-funded scientific, technological and industrial programmers with regards to their applicability in Russian S&T policy and programmers;
- Development of co-funding mechanisms for the USA-Russia R&D programme, monitoring and organizational support for the selected jointly funded R&D projects within the programme;
- Selection of the leading government-funded R&D projects in the areas of Life Sciences and Nanotechnology for the international Economic Forum in Saint Petersburg in 2006;
- Analytical reviews of worldwide foresight programmes in the view of its potential application in Russia and Russian regions and its further implementation;
- Foresight of the S&T development in the Russian Federation till 2025 and responsible for coordination between regions and experts;
- Organization of educational programmers of dissemination of the foresight experience for target audience of experts and high-level executives and in the development of the concepts of pilot foresight programmes for East European countries.

Currently, ICISTE is involved in three FP7 projects, namely, BILAT.RUS, ERA.Net RUS and ACCESSRU, which are aimed at the strengthening and intensifying S&T cooperation between Russia and Europe.

Ms. Irina Kuklina, Executive Director. In 2005-2007 - an advisor to the Federal (State) foundation to support small and medium size enterprises. In 2005-2008 - an advisor to the Deputy Head of the RF Federal Agency for Science and Innovation. Member of the Working Group on the Development of

the foresight of the S&T development in the Russian Federation till 2025 (Working Group is set up by the Russian Ministry for Science and Education) and was involved as an expert in European Commission's "World in 2025" project.

Ms. Oksana Anisimova, Expert for International S&T Cooperation. Since 2008 responsible for the development of joint bilateral S&T funding programmes between Russia and other countries and EU. Actively involved in development of the EU-Russia "coordinated calls" within FP7 in the area of life sciences. Actively involved in ERA.NET-Rus and ACCESSRU projects.

PARTNER 14: THE NETHERLANDS

The Ministry of Economic Affairs, Agriculture and Innovation (EL&I) is the Ministry with responsibility for Animal Health and Welfare policy in the Netherlands, as well as for Research, Extension and Education in the "Green Area". It has research programmes to provide evidence for and support to, policy development and implementation. The main contractor is Wageningen University and Research. The regular annual budget for research in the area of animal health amounts to 6.5 million Euros (including zoonoses) but excluding the costs of the HCU facilities (2.5 million Euros). At present, additional investments in animal health research involve 15 million EUROS for a 4 year innovation in Avian Influenza vaccine development provided by the Dutch administration, 4,2 million Euros in research and innovation programmes in the field of antimicrobial resistance, 1,5 million Euros in a research programme into Q-fever and 1,1 million Euros in research into natural resistance. The present animal health policy by the Ministry, and consequently its investments in research are focussing on prevention and control of major infectious diseases, zoonoses and emerging health threats as well as a substantial decrease in the use of antimicrobials in animal production. Involved in research funding are the Departments of Knowledge and Innovation, responsible for research infrastructure, programming and budget control and Food, Animal and Consumer, being responsible for the animal health policy.

Dr Albert Meijering (PhD) obtained his degree in animal sciences at Wageningen University. After 10 years of research in, subsequently, poultry nutrition and cattle breeding, 8 years in a management position with the state advisory service, 3 years in an integrating position of policy development and implementation for the ruminants sector and 9 years of research management (department, project, programme, account), he is responsible for research co-ordination in the fields of animal health and welfare since 2006.

Dr Meijering is the representative of the Ministry of EL&I in the CWG on Animal Health and Welfare Research and in the EMIDA Consortium. He holds the chair of the EMIDA Network Management group.

PARTNER 15: ITALY

Ministero della Salute is the Ministry of Health with responsibility for most of the domains related to animal health, food and feed safety and animal welfare at national level. All those activities are placed under the Dept for Veterinary Public Health, Nutrition and Food Safety. It was established in 2005 by expanding and reorganising the old Directorate General for Veterinary Health and Food. The Department encompasses two General Directorates (DG), a Secretariat and three Departmental Offices.

Of interest, the DG for Animal Health and Veterinary Medicines is responsible for: animal health, animal identification, management of the National Centre for Animal Disease Control and the Central Crisis Unit; animal welfare and animal reproduction; animal nutrition and feeding-stuffs; Veterinary Medical Products (VMPs) and residues; import controls of animals and food of animal origin.

The National Secretariat for Risk Assessment in the Food Chain is responsible for: assessment of physical, chemical and biological risks; relations with consumers; supporting the work of the National Food Safety Committee (CNSA), a consultative body which acts as a single contact point with the European Food Safety Authority (EFSA).

Office II of the Department for Veterinary Public Health, Nutrition and Food Safety (**HM - DVPHNFS**) is the central authority that: Coordinates and connects the activities of Istituti Zooprofilattici Sperimentali – IZSs that actually perform the 90% of public research on Animal Health; has the institutional role of research promoter of IZSs at national and international level; decides the main research areas within the National Health Program and the indications of National Health Research Commission, with a three annual basis, on Animal Health, Food Safety and Animal Welfare (Current year funding for the Institutes amounts at 20 M€ for about 100 projects); defines and supports the IZSs financial needs; manages the National Reference Centres; translates all the activities of IZSs in governmental actions (regulation, recommendation, etc).

Prof. Romano Marabelli, University Degree in Veterinary Medicine (1979), he is Head of Department since 2005, in charge for Animal Health sector for the Ministry of Health since 1985, as Director General for Veterinary Services of the Ministry of Health since 1991, as Director General for the Department of Food, Nutrition and Veterinary Public Health since 1995. He is Councillor on Health Matters for the Ministry of Foreign Affairs since 1990. Chairman (2000-2003) and deputy-chairman (1994, 1997-2000) at O.I.E. (International Office for epizooties) Paris. Member of the

Strategic Committee on Health 2007-2013, Brussels. Permanent representation as expert on health matters on behalf of the Minister of Health and the Minister of Foreign Affairs c/o the EEC in Brussels. Component and coordinator in UE groups working on the international sanitary agreement with United States of America, New Zealand, Chile, Russia. Italian representative in the Management Board of E.M.E.A. (European Agency for Evaluation of Medicinal Products). Gold medal for Public health in Italy in 2001 and Gold medal for OIE in 2006. Member of several Italian and International Veterinarians Association. Author and joint author of more than 100 works, published from 1981 to 2008.

Dr.ssa Marina Bagni, Veterinary Officer (Office II) will be leader in WP 5

University Degree in Veterinary Medicine (1993), 3 years PhD in Obstetrics and Immunology; Annual Specialization in Zooprophyllaxis, with almost 10 years of experience in research activity on evaluation of welfare in cultured species, such as fish and bovine. Some experiences in research program on public health in developing countries focused on the control of quality and safety of food coming from animals and animal health management (Bolivia, March-April 1994; Ethiopia, April 1995; Ghana, March 1998.) Since last 6 years she is in charge at Office II of the DVPHNFS, participates to the coordination of research activities of IZSs, to the work of the National Health Research Commission; to the promotion of European research; to the *iter* of evaluation of the research proposals sent to the Ministry.

Dr. Romano Zilli Graduate DVM (1987); post graduate three years specialization in Veterinary Public Health, has 20 years of professional experience. Since 2003 senior veterinarian at Veterinary and Food Safety Institute Lazio and Toscana (IZSLT), since 2007 responsible for Research and International Affairs. Research and Cooperation projects head management officer. Management of average 25/year research projects. Backstop officer in EMIDA ERA-Net, on behalf of Ministry of Health. Currently President of European Association of State Veterinary Officers.

Partner 16: Spain

The National Institute for Agricultural and Food Research and Technology (INIA)

The National Institute for Agricultural and Food Research and Technology (INIA) is an autonomous Public Research Organisation belonging to the Spanish Ministry of Education and Science. Its objectives are the programming, the coordination and the assignment of resources to scientific and technological activities, their monitoring and evaluation and the undertaking of research and technological development functions, including the technological transfer in Agriculture and Food sectors.

INIA distributes its activity between three major areas:

- As a public research organization.
- As the sectoral coordinator of food and agricultural research with autonomous regions.
- As a manager body for international cooperation in matters of agricultural science and technology.

INIA carries out its own research through three centres and six departments:

The Forest Research Centre (CIFOR), **the Centre for Animal Health Research (CISA)**, the Plant Genetic Resources Centre (CRF) and the departments of Biotechnology, Environment, Animal Breeding and Genetics, Plant Protection, Animal Reproduction and Food Technology.

CISA-INIA represented a modern and functional world-wide conception of a Biosafety Research Centre to work "in vitro" and "in vivo" in animal research on high risk and exotic infectious diseases of great economic impact as well as for studies in environmental health.

CISA perform scientific and technical activities related to Reference Laboratory for OIE and Community Reference Laboratory for EU for several infectious diseases of economical importance and collaborator Center for FAO in biosafety matters. Main Activities include: diagnosis, production and distribution of serological and virological diagnostic kits and reagents, training courses for technical and research staff from many different countries, technology transfer, international missions and consulting for the FAO, and participation in Research and Development projects related with these diseases. In addition, other activities are related as National Reference Laboratory for several diseases.

Of the same way, the INIA is a programme owner and responsible to make the public calls, defining, financing and managing research strategic research programmes at national level (in coordination with the regional authorities) such as the Agricultural Resources and Technologies Programme, the Conservation of Genetic Resources of Agro-food Interest Programme, the Interaction between Wild Fauna and Extensive Livestock Programme, and the Agro-forest Carbon Sinks of Greenhouse Effect Programme.

The INIA is the Spanish representative to the CGIAR (Consultative Group on International Agricultural Research), supporting it with annual funds. Moreover INIA supports a wide range of activities in Latin American countries through bilateral scientific cooperation agreements. It is also the Spanish representative to the Management Committees of the EU Framework Programme of R+D in the Agro-food ambit as well as being the Spanish representative in the SCAR Committee.

To develop the duties at the project, there will be involvement of INIA personnel headed by Dra. Nuria Duran Vila, who is responsible for International Affairs, assisted by Andrés Montero Aparicio, who is responsible for INIA's European Projects Office, and other managerial and scientific staff at the Institution. Dra. Duran is responsible of the coordination of all the activities related to the

International Cooperation, including those related to the development and reinforcement of the ERA, the Latin American actions (including the developmental actions of the Forum of the INIA of Latin America and FONTAGRO), the Spanish contribution to CGIAR and its relationships.

PARTNER 17: PFIZER INTERNATIONAL OPERATIONS, FRANCE

Pfizer Animal Health (PAH) is a core business of Pfizer Inc. Pfizer is a research-based global pharmaceutical, biological and genetics company that discovers, develops, manufactures and markets leading prescription medicines for humans and animals, as well as many of the world's best-known consumer products. The company is dedicated to humanity's quest for longer, healthier, happier lives through innovation in pharmaceutical, biologicals, consumer, and animal health products. To achieve this purpose and mission, Pfizer affirm the values of Integrity, Leadership, Innovation, Performance, Teamwork, Customer Focus, Respect for People and Community.

Currently, Pfizer employs over 100,000 people in 60 countries and has sales in more than 150 countries. Pfizer has major R&D sites around the world and at least 28 additional clinical research sites. The current overall investment in R&D is approx \$8 billion - the largest investment of any pharmaceutical company and of any private sector research institution in the world. Its development program is the largest in the global animal health industry. For the last ten years, Pfizer has been active in supporting both internal and external research in different livestock species and support the farming and education

In Global Alliances at Pfizer Animal Health we establish collaborations with different research and academic institutes around the world. We proactively or reactively identify opportunities of high value to animal health and evaluate them together with our researchers and marketers. We also drive the creation of new research models and partnerships (e.g. consortia, clinical investigation centres, task forces, co-funding etc.) that will bring added value to the health, productivity and wellbeing of animals.

Key persons involved

Dr. Theo Kanellos, DVM, MSc, OVS, PhD, MRCVS

Associate Director in Global Alliances, Pfizer Animal Health

Dr. Theo Kanellos is a veterinarian with an MSc in veterinary microbiology and a PhD in molecular medicine. He initially worked as a practitioner in a mixed practice and subsequently in research for over fifteen years either in academic, governmental or industrial organisations, in several countries within Europe, Africa and Asia. In his current role within Pfizer Animal Health, he identifies and

develops external research alliances with research groups and organisation within Europe Africa and Middle East regions. He is also active member of the ETPGAH and DISCONTTOOLS EU programme which is lead by IFAH.

Main tasks and responsibilities

Pfizer Animal Health will participate in Work Packages 1, 3 and 5

Relevant previous experience

- In Global Alliances, at Pfizer Animal Health, we develop collaborations with different research and academic institutes around the world. We proactively or reactively identify opportunities of high value to animal health and evaluate them together with our researchers and marketers. We also drive the creation of novel research models and partnerships (e.g. consortia, clinical investigation centres, task forces, co-funding etc.) that will bring added value to the health, productivity and wellbeing of animals.

- Active collaborators in the following EU grants:

1. DISCONTTOOLS.
2. The European Technology Platform for Global Animal Health (ETPGAH) network
3. COST Action FA0805. Goat-parasite interactions: from knowledge to control” (CAPARA)
4. BIO4-98- Design of therapeutic vaccines against chronic hepatitis B virus (HBV) infection in pre-clinical models.

- Participated in a number of EU projects and networks as an associate member or observer.

- Expert reviewer of EU Marie Curie programmes.

- Expert reviewer of different National research and innovation programmes.

PARTNER 18: AUSTRALIA

The Australian Government Department of Agriculture, Fisheries and Forestry (AG DAFF) is the ministry responsible for national animal health policy in Australia, including coordination of research. The State and Territory departments of primary industry, CSIRO, Cooperative Research Centres, universities and a diverse range of other organisations contribute to both funding and delivery of research projects.

Australia has research strengths in a range for particular diseases, including:

- the CSIRO Australian Animal Health Laboratory (AAHL) in disease diagnostics, avian/swine influenza, classical swine fever, FMD;

- CSIRO AAHL, the Northern Territory (NT) and New South Wales (NSW) state departments in bluetongue and other arboviruses;
- CSIRO AAHL and the Queensland state department in Hendra virus and other bat-borne viruses;
- CSIRO AAHL and the NSW state department in equine influenza and finfish diseases;
- CSIRO AAHL and the NT and Queensland departments in diseases of crustaceans;
- the NSW state department and University of Western Australia in diseases of bees;
- AG DAFF in emergency management, foresight, disease modelling, risk analysis; and
- various universities in a range of relevant areas, including animal production, nutrition and endemic diseases including parasitic diseases.

An overview of animal health in Australia is provided in each annual *Animal Health in Australia* report (see: <http://www.animalhealthaustralia.com.au/programs/adsp/nahis/ahia.cfm>). The chapter on research and development in the latest available *Animal Health in Australia* report (covering the 2008 calendar) year provides an overview of current research activities both in Australia and by Australian organisations working in other countries (see: http://www.animalhealthaustralia.com.au/shadomx/apps/fms/fmsdownload.cfm?file_uuid=56519563-044D-F585-17D3-5B9F4BA9A67A&siteName=aahc).

Dr Mike Nunn is the Principal Scientist (Animal Biosecurity) in AG DAFF. In this role, he provides high level scientific and technical advice, and related policy advice and assistance, on matters relating to animal Biosecurity. As part of this he maintains strong links with research providers (e.g. CSIRO and Cooperative Research Centres), funders (e.g. the Australian Centre for International Agricultural Research) and beneficiaries or users (such as industry groups, Animal Health Australia and AusAID). He has worked on a number of national and international expert committees, including *ad hoc* expert groups of the World Organisation for Animal Health (OIE), on diseases ranging from bovine spongiform encephalopathy to avian influenza and on issues such as emerging zoonoses. He has also undertaken consultancies for a range of regional and international organizations on topics ranging from animal health surveillance systems to emerging zoonoses. He has particular interests in the pathobiology of disease, epidemiology and veterinary public health (including the ecology of emerging infectious diseases and the management of emergency animal diseases), risk analysis (especially risk communication, including risk perception and its effects on animal health policy), and the application of foresight and futures approaches to strategic planning in animal health and production.

Partner 19: INDIA**Ministry of Science and Technology, Department for Biotechnology (DBT)**

The Department of Biotechnology was established in 1986, by the Indian government, within the Ministry of Science & Technology to encourage the development of biotechnology in India through a central coordinating, funding and policy making government organisation.

The mandate of DBT is to promote and fund research, development and innovation in all areas of life-sciences and biotechnology. Funding from the department is available to all government and government aided research organisations/institutions/universities of the country; DBT also provides funds to non-governmental organizations and industry through a competitive grants system. Seventy percent of the total budget of the department is available for these extramural grants. The total budget of the department for this fiscal year is approx US \$260 million with a yearly increase of about 15-20%.

Government funding to the S&T sector increased by a factor of eight from the 8th Five Year Plan to the 11th, i.e. till 2012, while support to the life sciences sector steadily increased by 16 times in the same period. The trend is likely to last for the next five year plan as well (2012-2017). As a result, a firm foundation of life sciences and biotechnology has been created over the years in public-funded institutions over which a strong edifice of innovation and enterprise could be built.

DBT works closely with other bodies in India, including the Indian Council for Agriculture research. DBT, in a concerted effort, has also expanded strategic, bilateral and multilateral cooperation with various countries. The efforts have not only been towards R&D&I but have also endeavoured towards creating opportunities for higher education training and capacity building.

The department has established successful collaborations with strategic partners like Australia, Canada, Denmark, Finland, Japan Norway, Sweden, Switzerland, UK, EU and USA; with increasing financial commitment from the collaborating countries for these collaborations.

The Department has successfully participated and partnered in the first ERANET for India - New Indigo.

DBT is a government of India organization and committed to working cohesively with its partners towards successful implementation of the projects and the commitment towards STAR-IDAZ is complete.

Key Person involved:

Dr. Shailja V. Gupta is Joint Director, International Cooperation in the Department of Biotechnology

Partner 20: MERIAL SAS

Merial is a world-leading animal healthcare company with a global total market share of more than 14 percent.

An innovation-driven leader, Merial makes significant investments in research and development, with ten research and development centres around the world. Merial is committed to developing pharmaceuticals and vaccines with the highest level of quality, safety and efficacy through an extensive network of 16 manufacturing sites.

Merial provides a comprehensive range of products to enhance the health, well-being and performance of a wide range of animals. We play a pioneering role with governments around the globe to contain and manage various animal diseases—recognizing that the prevention and cure of animal diseases are in the interests of protecting the health of animals and of man. Merial is a world-leading, innovation-driven animal health company, providing a comprehensive range of products to enhance the health, well-being and performance of a wide range of animals. Merial employs approximately 5,700 people and operates in more than 150 countries worldwide. Its 2010 sales were over \$2.6 billion. Merial is a separate subsidiary of Sanofi-Aventis.

Key persons involved:

Dr. Jules Minke received his DVM PhD at the Veterinary Faculty in Utrecht, The Netherlands. He joined Merial in 1996 and is currently Head of Research Projects Biologicals with global responsibility. He brings over 20 years of experience in animal vaccine industry and vaccinology. He has spearheaded the development and successful registration of vaccines both in the EU and US including equine influenza, herpes, encephalitis, tetanus and WNV vaccines for horses and several combination vaccines for companion animals. He has been instrumental in the development and patenting of the canarypox recombinant platform technology used in animals. He is also an active member of the DISCONTTOOLS EU program lead by IFAH. Dr. Minke is (co-)author of more than 35 peer reviewed papers in international journals.

Main tasks and responsibilities:

Merial will participate in Work Packages 1, 3 and 5

Relevant previous experience:

In the past 10 years, Merial R&D has actively collaborated on the following national and international projects:

1. DISCONTTOOLS
2. Several EU projects (PCVD, BTVAC, ORBIVAC)
3. Lyon Biopole
4. EGPTH
5. Arbozoonet

Partner 21: UK - BBSRC

The Biotechnology and Biological Science Research Council (BBSRC) is the UK's leading funder of academic research and training in the non-clinical life sciences in universities, institutes and centres. It is one of the seven UK Research Councils that work together as Research Councils UK. BBSRC is a non-departmental public body sponsored through the Department for Business, Innovation and Skills (BIS).

BBSRC's Vision is to lead world-class 21st century bioscience, promoting innovation and realising benefits for society within and beyond the UK. It funds internationally competitive research to improve fundamental understanding of biological systems. BBSRC's funded research spans the microbial, plant and animal kingdoms, from molecules to cells to whole organisms and populations.

Animal Health and Welfare are areas of strategic priorities for BBSRC. Animal Health research is aimed at combating both endemic and exotic infectious diseases including food-borne and vector-borne diseases. BBSRC is also committed to ensuring high standards of animal welfare and supports research that will inform strategies for improving the conditions of animals.

BBSRC has a significant research portfolio of research in Animal Health and Welfare and the recent strategic investment includes research on swine influenza (€2M) in coordination with Defra, Medical Research Council and the Wellcome Trust; insect pollinator initiative (up to €12M) in coordination with Defra, Scottish Government, Natural Environment Research Council and the Wellcome Trust; infectious diseases of livestock for international development (€15M) in coordination with DFID and the Scottish Government.

BBSRC funds eight mission-driven Institutes which provide critical national capability and expertise in strategically important areas and are central to delivering BBSRC's vision and priorities. Two of these Institutes, the Institute for Animal Health and the Roslin Institute, provide specialist facilities for long term basic, strategic and applied research in Animal Health and Welfare:

- Institute for Animal Health (IAH) is a world-leading centre of excellence for research into infectious diseases of farm animals including some that affect people. In addition to research, IAH provides a vital service in real time at times of disease outbreaks, both nationally and internationally.
- Roslin Institute, now incorporated with the Royal (Dick) School of Veterinary Studies, is focused on the health and welfare of animals, and applications of basic animal sciences in human and veterinary medicine, the livestock industry and food security.

BBSRC maintains strong connections with the other major funders of animal health research in the UK, particularly with the Defra, Food Standards Agency, the devolved administrations in Scotland and Northern Ireland, and the Wellcome Trust.

Dr Sadhana Sharma BSc, PhD, has over 10 years of academic and industrial research experience in Canada and UK focussing on the structure-function relationships of both microbial and mammalian proteins including G-protein coupled receptors. Dr Sharma also has management experience in industry (Group Leader of Gene Structure and Function group and manager of core automated sequencing facility). She has been with BBSRC for seven years, responsible for developing, implementing and communicating BBSRC Strategies and Policies related to tools, resources and technologies including Nanotechnologies and Bioscience Engineering. In her current role, Dr Sharma is responsible for BBSRC's Animal Health remit. She represents BBSRC at the SCAR CWG, EMIDA ERANET, the UK Animal Disease Research Funders Forum and the Poultry Research Committee.

Partner 22: INTERNATIONAL FEDERATION FOR ANIMAL HEALTH

IFAH (International Federation for Animal Health) is the world-wide association for the research-based veterinary medicines producers; it is an International non-profit association (AISBL –association sans but lucratif) under Belgian law. IFAHs member base consists of both research-based veterinary manufacturer (in November 2010 company members are Alparma, Bayer Animal Health, Boehringer-Ingelheim Animal Health, Elanco Animal Health, Intervet/Schering-Plough Animal Health, Janssen Animal Health, Lohmann Animal Health, Merial SAS, Novartis Animal Health, Pfizer Animal Health, Vetoquinol and Virbac), as well as national veterinary medicine producer associations which also represent smaller companies (most relevant to this project is IFAH-Europa, but IFAH has association members from all continent). Its mission is to foster a greater understanding of animal health matters and to promote a predictable, science-based regulatory environment that facilitates the supply of innovative and quality animal medicines, vaccines and other animal health products into a competitive market place.

IFAH's European member association IFAH-Europe has successfully run the European Technology Platform for Global Animal Health (ETPGAH) and the DISCONTTOOL projects, and the relevant outputs of these projects would be made available to STAR-IDAZ through IFAH.

Through its company members, IFAH can tap into rich resources of veterinary medicines (pharmaceuticals and biologics) research and development knowhow.

Barbara Freischem is a veterinary surgeon with more than twenty years experience in regulation of veterinary medicines. Her experience includes residues analysis, toxicology, risk assessment, adverse event monitoring/pharmacovigilance. Initially employed in various capacities at the German Regulatory Authority (initially the Federal Health Office – Bundesgesundheitsamt, BGA, then

Bundesinstitut fuer gesundheitlichen Verbraucherschutz - BgVV, now Bundesamt fuer Verbraucherschutz und Lebensmittelsicherheit - BVL), followed by eight years at the European Medicines Agency, Barbara was three years with Novartis Animal Health as the Global head of pharmacovigilance and since 2008 holds the position as the Executive Director of IFAH. In her current capacity she interacts with international organisations (such as OIE, Codex Alimentarius, FAO and WHO) in animal health matters including zoonoses.

B 2.3 Consortium as a whole

The consortium consists of 23 partner organisations from 17 countries: 7 Member State Countries; 6 International Cooperation Partner Countries (ICPC) and 4 Third Countries. The consortium will be led by Defra, UK.

The Consortium includes many of the leading national financing bodies for Animal Health research globally. Each Partner is committed to the development of a sustainable Global Network. Funding has been included for a number of relevant organisations from countries not currently represented. If they join at a later stage they will be welcome to do so subject to approval by the Commission.

In addition, the Global Net will include participation of IFAH and two Animal Health companies as full partners and OIE, EFSA, The Wellcome Trust and the Agriculture, Forestry and Fisheries Research Council Secretariat, Japan as Associated partners; they will contribute their expertise and views and have indicated their commitment to the Global Network. Other International organisations, including FAO, ILRI, and GALVmed will be invited to participate as Associated Partners.

A number of the partners have been involved in the GFRA over the past few years while the European partners have been working together in the EMIDA ERA-NET and associated Collaborative Working Group over a period of time indicating their commitment to formal collaboration and coordination of research funding. The Consortium contains members from North and South America, Asia and Australasia as well as Russia and Europe and with interest in the various livestock sectors including fish, bees and horses as food producing animals. Efforts will continue to identify and involve suitable African partners and the establishment of an African regional network will be considered. The consortium also includes funders of basic, strategic and applied science, allowing a joined-up approach which should improve delivery. Based within or affiliated to Government animal health policy or science and innovation departments, together they also have extensive links with the various industry sectors, the research community and other stakeholder groups, including the European Technology Platform for Global Animal Health, OIE, EFSA, ECDC and FAO.

i) Sub-contracting

There are three subcontracts foreseen in this project. The first, for 28,000 Euros, is for the development of a project website and discussion forum including maintenance and modifications to the existing CWG and EMIDA databases if necessary. The second, for 2,000 Euros, is for an external auditor to provide a Certificate on Financial Statements for the Coordinator (the only beneficiary expected to exceed to the 375,000 Euro threshold). The third, for 50,000 Euros, is to outsource the WP5 consultation exercise, most likely in the form of a Delphi study.

Sub-contracts will be placed in accordance with the conditions specified by the Commission relating to transparency, equal opportunities and value for money.

ii) Other Countries

There are 11 non-EU partners that are eligible to participate in FP7 or necessary to fulfil the objectives of this call, including seven from ICPC countries and four from Third Countries. Call FP7-KBBE-2010-4 is concerned with the establishment of a global network of research funding organisations and stated that the participation of countries with S&T bilateral agreements with the EC is particularly welcome – these include the four Third Countries involved in the project, Australia, New Zealand, Canada and the USA - and are considered essential to its success. They will receive the same travel and subsistence budget as the other partners (except for the Indian partner who asked not to have a budget and the commercial partners who are also not receiving a budget). In addition to their standard travel and subsistence budget the Australian partner (Partner 19), as leader of the Asia and Australasia regional network will receive an additional €25k to cover the travel and subsistence costs of a number of players, other than STAR-IDAZ partners, from that region when attending meetings; €3k for meetings and €5K for secretarial support (as for EMBRAPA leading the Americas regional network). The Australian partner is best placed to lead this network because of their established contacts in the region through their role in the Animal Production and Health Commission for the Pacific. The USA partner (Partner 7) will receive, in addition to the standard travel and subsistence budget €25k as deputy leader of WP3 to cover expenses relating to the organisation of meetings concerned with the development of a common research agenda on priority topics but will not receive a budget for personnel costs. Partner 7 (USDA-ARS) is best suited to this role due to their experience of, and active participation in the Global FMD Research Alliance.

iii) Additional Beneficiaries

It is hoped that a small number of additional beneficiaries from areas not currently or under represented will join and efforts are continuing to recruit them. Organisations from other countries will be invited to participate in the regional networks.

B 2.4 Resources to be committed**Totality of the resources to be mobilised.**

The total requested budget from the EC for the project over the 48 month period is €999,130. Additional resources will be mobilised from the Partner Organisations.

Resources which will complement the EC contribution.

All of the organisations involved will make in-kind contribution in the form of time contributed to the project by senior/experienced personnel. The organisations leading various work-packages will provide the salary of the senior personnel involved in running these work packages, which will amount to at least 40% of the person's time in the case of WP 1 and up to 40% of the time for the

leader of WP2. **It is estimated that the total person-months involved in delivering the project is 329 of which approximately one third are costed to the project.**

Integration of resources in a coherent way

The proposed budget has four components - travel and subsistence for members attending the various meetings, stakeholder consultation exercises, information gathering exercises and personnel costs, largely in the form of the necessary administration assistance required to ensure the necessary coordination of activities and deliver a successful outcome to the project.

Adequacy of the overall financial plan for the project.

The project coordinator has considerable experience of budget planning, monitoring and implementation, being part of the team that manage Defra's €40million annual research budget on animal health and welfare. The estimated costs for the project are based on previous experience and are realistic and adequate. A high proportion of the project will involve expenditure on organisation of project meetings, workshops, conferences and the maintenance of the information database and the website. The overall budget (see Table 2.4) was developed on the basis of individual costs of the various components.

In the case of meetings, the costs of travel and subsistence will be borne by the project. Travel and Subsistence funding for 5 additional partners will be held by the coordinator. Discussions have taken place with a suitable partner in Japan and organisations in Africa have been contacted about their possible involvement.

The estimated travel and subsistence costs per person are:

Item per person	Average cost in Euros
Travel within region	800
Travel out-with region	1,000
Subsistence	250 per day
TOTAL	
Within region 1 day meetings	1,300
Within region 2 day meetings	1,550
Out-with regional 2 day meetings	1,750

Table 2.4: Budget Summary

A: Expenses and calculation for the non-personnel costs	Euro costs
Project Consortium (23 partners) meetings (two days) X4	
Travel & subsistence cost	171,400
Hire of facilities and catering costs for meetings	12,000
Regional Network (16 partners + stakeholders) meetings (one day) in each of two regions X3	
Travel & subsistence cost (partners)	53,600
T&S Additional regional stakeholders	50,000
Hire of facilities for meetings	6,000
T&S for European participants (1/region)	9,000
Network Management Board meetings (one day) X4 (organised back to back with Consortium meetings)	
Travel & subsistence cost	11,000
WP1	
Establish website, modify CWG databases and continued IT support	48,000
Auditor for Certificate on Financial Statements	2,000
WP 2	
- Establish information portal on national programmes and organization of research& relational database and related web-bases interface to be linked to project website	50,000
WP3	
Meeting costs, including travel and subsistence and meeting venue	25,000
WP4	
Networking meetings for research community	10,000
WP5	
Consultation exercise	50,000
Sub-total (non-personnel)	498,000
B: Personnel (salary) costs	
WP1 Project support –(48MM)	
Provide project secretariat, organise project meetings and prepare minutes, manage project budget, maintain project web site, prepare project reports, project communication including production of newsletters, provide support to WP 3-5 activities	230,000
Regional Network coordinators X2	10,000
WP2 Bibliometrics, webometrics and database assistant for mapping portal-relational databases- web-interface design and development , collect of information, maintenance and information update (24MM)	70,000
WP3 WP leader	27,000
WP4 WP leader	27,000
WP Deputy leader	25,000
WP5 WP leader	27,000
WP Deputy leader	25,000
Sub-total (personnel)	441,000
Overheads (7%)	60,130
Total costs of project	999,130

B3. Impact

B 3.1 Strategic impact

General Impacts

The long term objective of the Global network is the creation of an open network of mutually accessible and complementary research programmes able to respond to regional and global challenges, creating the tools for improved control of the major animal diseases threatening the livestock industries and/or of public health concern by bringing forward joint research programmes on major infectious diseases of livestock.

It will also bring added value and leverage to the extensive research effort undertaken by the Partners' own initiatives.

Impact on the Structure of the Animal Health Research

The Global Network will have a significant and rapid impact on structuring animal health research globally (see Figure 1.1). The main impacts will be:

The structured and systematic sharing of information between national programme funders/managers.

- The strategic development of common research agendas on major infectious diseases based on shared priorities on which joint/coordinated trans-national activities can be based.
- The development of an expanded, long-term, sustainable Network infrastructure that will continue beyond the end of EU-supported project, facilitating long-term cooperation.
- The establishment of a Network that can serve the needs of the countries represented in the network and International Organisations Commission in providing comprehensive information on existing research activities and consensus views on future needs and priorities.

Impact on National/Regional Research Programmes

The proposed project will have significant impacts and benefits for existing and potential national Animal Health research programmes and research providers, as follows:

- *Optimisation of national programme funds*: this would be achieved by preventing duplication and by increasing funding power through coordination of national research expenditure and the pooling of national resources. An additional benefit of pooling resources would be the potential to do more strategic 'underpinning' research.
- *Building national research capacity and expertise*: The global network will encourage and help facilitate the setting up of national animal health research programmes on particular topics in countries where they do not currently exist. Twinning of projects will also help maintain and develop research expertise in animal health-related science areas, make such expertise more accessible

through joint activities and generally build the capacity of the global research effort on Animal health.

- *Supporting networks of research providers:* Networking of research providers, where this is considered necessary for the creation or maintenance of critical mass, exchange of materials and expertise or the provision of a multidisciplinary approach will be encouraged and facilitated.

Impact on Consortium Participants

Critical mass will be achieved through the involvement of other countries in the consortium which have significant research programmes on particular topics.

All the main regions of the globe (e.g. Europe, North and South America, Asia and Australasia) are represented in the consortium such that regional priorities and agendas can be developed in addition to a wider EU animal health research agenda. Efforts to include African involvement will continue.

All of the main livestock sectors, including fish, are included allowing sectoral priorities and agendas to also be developed.

All of the main funding streams, including strategic/applied research funded by Agriculture and Public Health ministries and more fundamental studies funded by research councils will be represented within the project consortium resulting in a joined-up approach which will assist uptake of research outputs. The Animal Health industries are also represented through the involvement of IFAH and an Animal Health company.

Contribution to Standards and harmonisation of procedures.

A data sharing policy will be adopted by the project partners.

Common standards for the commissioning and evaluation of proposals and for the subsequent monitoring and evaluation of projects commissioned as part of coordinated funding activities will be encouraged.

Contribution to Animal Health Policy and Animal Disease Control

Outbreaks of highly contagious diseases, such as FMD and HP Avian Influenza, in countries normally free of these diseases have been expensive to control. Other concerns include the development of antibiotic resistance pathogens posing a threat to both animal and human health and anthelmintic resistant parasites removing the available treatment options for livestock thus threatening food security.

The number of new threats is increasing as the trade in animals and animal products and feed material becomes even more global and climate change increasingly favours the expansion of the range of pests and associated diseases.

It will address a number of areas identified in the Strategic Research Agenda of the European Technology Platform on Global Animal Health (ETPGAH).

By using the strategy and consensus already achieved and expressed in the main papers of the technology platform STAR-IDA prevent unnecessary duplication at the level of coordination. The force of the vision, strategy and action plan of the ETPGAH is the involvement of industry, authorities and research environment. As such the technology platform, as an official EU-instrument, offers a common European point of view in questions related to animal health. At the same time the STAR-IDA makes the European agenda truly global and begins an implementation through a worldwide network beyond an exclusively European context.

The Global Network will better link to, and underpin, the development of animal health policies in countries represented in the Network Consortium through prioritised and strategic research coordination and better access to information. More coordinated research is also required to develop management tools for policy implementation, including: efficient and effective diagnostic methods and intervention/control strategies, modelling approaches to predict the risks of disease introduction and spread and predict the impact of intervention strategies

Impact on Policies for Developing Animal Science Expertise and Capacities

Out-with special initiatives during emergencies, overall national budgets for animal health research are not increasing significantly in step with increasing threats. There is also a concern that the scientific basis of the animal health field is eroding, with lack of expertise in some regions of the world in areas such as entomology. The Global Network would ensure best use of available funds minimising overlap and repetitive research.

Better coordination and collaboration in the animal health research area would reinforce and complement activities designed to strengthen other parts of the animal health area such as training and infrastructure initiatives.

B 3.2 Spreading excellence, exploiting results, disseminating knowledge

The project will involve regular meetings of representatives of 20 research funding organisations or programme managers (Government policy departments and Research Councils) from 17 or more countries who will share information, both formally and informally. Covering the spectrum of scientific activities from basic/fundamental to strategic and applied research will assist the uptake or exploitation of results. Involvement of International Organisations and Animal Health industries will further assist the exploitation of results. Links with the European Technology Platform on Global Animal Health, and its focus on research deliverables will improve the relevance and thus the eventual uptake of the research outputs.

A communications strategy will be developed early in the project. However, the activities outlined below are envisaged.

The CWG and EMIDA are currently, for the first time, collating information on the national programmes of existing European members and this is being made publicly available via a database on its website. Global Net support will allow this to be expanded to include more countries. This database will be updated yearly throughout the project and beyond the end of EMIDA. Where possible, national research reports will also be made available via the website, either directly or through links to national websites. Data and information will therefore be more readily accessible to policy makers, other research users and scientists.

In addition to having information on research activities across member countries/organisations the Global Net web site will also have a “notice board” for exchange of information, including announcements concerning planned research funding, and will allow on-line discussion so that Programme managers feel part of a mutual support community. An electronic Newsletter will be produced twice yearly.

B4. Ethical issues

This is a Coordination and Support Action establishing a funders' network and does not directly involve any research activities. However, networking of research funders should reduce duplication of effort thus contributing to a reduction in the use of animals. The network will promote the adoption of the highest standards for the use of animals in experimental research where collaborative activities arising out of the network results in research involving the use of animals. Research organisations involved in collaborative activities will be expected to comply fully with local ethical and regulatory requirements in their home country.

A data sharing policy will be developed and agreed within six months of the start of the project.