

## FLU-LAB-NET EXECUTIVE SUMMARY

The FLU-LAB-NET project provides opportunities for reinforcement and enhancing inter-laboratory networks for Avian Influenza (AI) within the EU and globally, facilitating communication, improvements and harmonisation of laboratory and diagnostic methods, coordination of research efforts, data sharing and exchange, as well as the development and sharing of expertise. In essence, the FLU-LAB-NET project can be distilled into four very clear objectives:

- i) Development and implementation of appropriate Information Technology (IT) infrastructure to support communication networks – as envisaged by Work Package (WP) 2;
- ii) Engagement and interaction of the EU Community Reference Laboratory (CRL) and the National Reference Laboratory (NRL) Partner Institute 'Internal' Network – as envisaged by WP3;
- iii) Engagement and interaction of the non-EU Partner and Member Institute 'External' Network – as envisaged by WP4;
- iv) Provision and the use of a central IT platform to enable communication, knowledge sharing and harmonisation between the Partner and Member Institutes of the Internal and External Networks.

Delivery of this work has been through the matrix of these three themed and synergistic Work Packages, supported by WP1, "Task Coordination, Management & Logistics". During the reporting period from the start of the FLU-LAB-NET project (1<sup>st</sup> May 2007) to the mid-point (31<sup>st</sup> October 2008), the three core project delivery objectives have been:

1. Development of an appropriate IT infrastructure to enable communication between the respective Networks (Internal and External) and Partner/Member laboratories (WP2).
2. Piloting and phased roll out of the FLU-LAB-NET IT infrastructure to the Partners and Members of the Internal (WP3) and External (WP4) Networks.
3. With the FLU-LAB-NET IT infrastructure in place, to initially promote and engage Partners and Members in the use of the FLU-LAB-NET system.

Emphasis on appropriate 'Open source' technological development, including the capability for technology and knowledge transfer, and the provision of deliverables in the form of novel IT communication and networking tools under-pins and is central to the FLU-LAB-NET concept and project. In the continuing climate of evolving H5N1 HPAI spread across all continents of the globe the IT infrastructure development of the FLU-LAB-NET project enables, by means of a Web-based system with authenticated user access areas, a framework to facilitate discussion forums, secure data access, storage and exchange and implementation of real-time data exchange. Most importantly this builds upon and strengthens a well-established laboratory network in Europe and facilitates much closer interaction and harmonised working, critical if we are to be successful in the control of AI in both animals and humans.

The FLU-LAB-NET IT infrastructure and system has been developed by VLA (P1) as part of WP2 and encompasses two main areas:

1. The public website - <http://www.flu-lab-net.eu> - comprises summary information about the project and Avian Influenza, as well as links to other relevant projects and resources. This website is in the public domain and is available to all.

2. The project 'Community Server' area that is specific to registered Partners and Members of the FLU-LAB-NET project. The FLU-LAB-NET Community area includes, amongst other things, Forums with a range of discussions and is split into a number of separate areas, and Download areas for document and information exchange and sharing. Importantly interactive workshop sessions and one-to-one IT support and tuition in use of the system was provided to Partners at the FLU-LAB-NET Interim project meeting.

During the reporting period (to 31<sup>st</sup> October 2008) 253 project Partner and Member participants have been registered on FLU-LAB-NET from a total of 45 Institutes and Organisations. In addition, a further eleven Members, Affiliates and Institutes/Organisations involved in Institute-to-Institute discussion Forums hosted by the FLU-LAB-NET External Network (WP4) have been registered, with 21 participating personnel. Overall, from the 56 Institutes and Organisations and 271 personnel contributing to the FLU-LAB-NET project there have been 81 threads and 289 posts in the 16 discussion Forums. A diverse range of laboratory focused topics have been discussed including: AI laboratory testing strategies; proficiency test results; 'hot news' on AI outbreaks in the EU; new and additional methodology for the detection of H5, H7 and H9 AI viruses by real-time RT-PCR; H7 molecular epidemiology; and use of extraction robots in testing.

The Internal Network Partners and Members (WP3) comprise P1 to P21, P23, P24, P38, P42, P43, P60, P61 and P63 (see Table 1). In WP3, since November 2007, a total of 30 Partner/Member Institutes and 218 personnel from 27 Member States have registered as part of the FLU-LAB-NET Internal Network. In addition, during the reporting period the Internal Network, including the CRL at VLA Weybridge has contributed 80 threads and 276 posts in thirteen available discussion Forums.

The External Network Partners and Members (WP4) comprise P22, P26, P27, P28, P29, P30, P31, P32, P33, P34, P35, P37, P39, P40 and P70 (see Table 1). Since July 2008, a total of 26 Institutes and 51 personnel have registered as part of the FLU-LAB-NET External Network. These totals comprise 15 External Partner/Member Institutes and 35 personnel and 11 other Institutes, Organisations and Affiliates with Institute-to-Institute discussion Forums hosted by the FLU-LAB-NET External Network, with 18 personnel registrations.

The FLU-LAB-NET 'Download' facility area provides a collaborative workspace allowing knowledge sharing by two-way document exchange, which has proved to be very successful with significant usage. As of 31<sup>st</sup> October 2008, the Download area has a total of eight primary Download areas comprising 16 separate FLU-LAB-NET Project Download Folders containing 152 Download files. These files have been viewed a total of 1,907 times with 1,352 downloads, representing a significant level of activity relating to this shared FLU-LAB-NET resource.

Furthermore, during the reporting period the FLU-LAB-NET project has identified five specific areas of Exploitable knowledge focussed on the IT infrastructure and knowledge sharing activities and applications facilitated by the IT system that has been developed. Dissemination of knowledge has also been a significant feature of the project to date. The FLU-LAB-NET public website ([www.flu-lab-net.eu](http://www.flu-lab-net.eu)) provides a useful resource available in the public domain. The Forums, Downloads and Image galleries available to the Partners/Members in the web-based Community areas provide and enable targeted discussion and knowledge sharing. In addition,

promulgation of the FLU-LAB-NET project aims and objectives has been achieved through contributions to two publications<sup>1</sup> and at six International meetings.

In line with the four core objectives, FLU-LAB-NET has developed and is implementing opportunities for the continued enhancement and reinforcement of both the CRL and NRL Internal network within the EU (as envisaged by WP3). In addition, the project is enabling development and provision of an outreach facility to strategically important and relevant non-EU Member State laboratories, including Partner and Member laboratories in Third countries and INCO states comprising the External network (as envisaged by WP4). These aims, and fulfillment of the objectives of FLU-LAB-NET contribute directly to clear needs presented by the current global AI scenarios.

Furthermore, the FLU-LAB-NET project objectives directly contribute to the two complementary strands that address the main objectives of the FP6-2005-SSP-5B-Influenza Call, specifically:

1. Development of protocols to ensure the correct implementation of the diagnostic test methods in reference laboratories, with strengthened options for proficiency testing, as appropriate.

*Delivery has been demonstrated through the use of the FLU-LAB-NET Download area to obtain laboratory protocols and proficiency test results. Increased scope of the latter both in terms of complexity and additional participants has been facilitated through FLU-LAB-NET.*

2. Setting up the appropriate environment for the optimum application of the testing methodologies: validation, reference materials, technology transfer, end-user gains and benefits from innovations etc.

*Discussion Forums on laboratory testing strategies and newly added validated methodologies have for example enabled rapid and coherent dissemination of information to the Internal and External Partner/Member laboratory Networks.*

It is envisaged that collaborations under the umbrella of FLU-LAB-NET will also ultimately contribute to improving the harmonisation of policy, legislation and regulations and epizootic management practices within the European community. FLU-LAB-NET provides a vehicle for dissemination of new, dynamic strategies that can be tailored for the control and management of AI at both a European and International level. In addition, through planned formal interactions with other veterinary and public health influenza networks in Europe this will greatly assist informed and collaborative approaches. The outcome of the FLU-LAB-NET project will have an impact both on the EU requirements and on the International effort in supporting the resolution of the global avian influenza crisis.

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<sup>1</sup> Publications available at: <http://www.defra.gov.uk/vla/review08/feature-flu-lab-net.htm> and [http://ec.europa.eu/research/health/poverty-diseases/doc/influenza-research\\_en.pdf](http://ec.europa.eu/research/health/poverty-diseases/doc/influenza-research_en.pdf)

**Table 1: Summary of FLU-LAB-NET Project Partners**

Partner no.	Partner name	Lead person	email address
1	Veterinary Laboratories Agency	Dr Ian Brown	<a href="mailto:i.h.brown@vla.defra.gsi.gov.uk">i.h.brown@vla.defra.gsi.gov.uk</a>
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