

FLU-LAB-NET EXECUTIVE SUMMARY

The FLU-LAB-NET project, funded as part of the European Commission's 6th Framework Programme (FP6), provides opportunities for reinforcement and enhancing inter-laboratory networks for Avian Influenza (AI), influenza A viruses of public and animal health significance (eg. Pandemic (H1N1) 2009 and/or influenza viruses with pandemic potential) and other influenza A viruses of animal origin (eg. Swine influenza) 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 and Organisations 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 current reporting period, 1st November 2008 to 30th April 2010, targeted activities have included web-based communication and networking, coordination of research efforts, data sharing and exchange and the development and sharing of expertise. These have been based upon the achievement of six core project delivery objectives, namely:

1. Maintenance and development of both the public project website - <http://www.flu-lab-net.eu> - and the open source 'Community server' IT infrastructure that enables communication between the respective Networks (Internal and External) and Partner/Member Institutes and Organisations engaged in the FLU-LAB-NET project (WP2).
2. Use of the FLU-LAB-NET IT infrastructure by the FLU-LAB-NET project Partners and Members of the Internal (WP3) and External (WP4) Networks.
3. Use of the FLU-LAB-NET IT infrastructure by Members, Affiliates and other Institutes and Organisations involved in 'Institute-to-Institute' Discussion Forums (hosted by the External Network – WP4).
4. Facilitation of the development and provision of relevant scientific and technical content within the FLU-LAB-NET community areas, including Discussion Forums and Download material, enabling knowledge transfer within and between Internal and External Network participants in WP3 and WP4.
5. Development and implementation of laboratory based activities that promote and enable harmonisation and standardisation of methods between the Partner and Member Institutes and Organisations of the Internal and External Networks (WP3 and WP4).
6. Scoping, prioritisation, development and implementation of new and additional content and media on the FLU-LAB-NET site to facilitate new initiatives and further promote Objectives 1-5 (WP2, WP3, WP4).

Since the start of the project (1st May 2007 to 30th April 2010) 281 project Partner and Member participants have been registered on FLU-LAB-NET from a total of 53 Institutes and Organisations of the Internal Network (WP3 - including all EU Member State National Reference Laboratories) and of the External Network (WP4 - comprising strategically relevant Institutes and Organisations from across the globe). In addition, 41 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 79 participating personnel. Overall, 94 Institutes and Organisations and 360 personnel have contributed to the 170 threads and 501 posts in the 27 discussion Forums in the FLU-LAB-NET project.

During the current reporting period (1st November 2008 to 30th April 2010) an additional eight Internal and External Network Partner/Member Institutes and Organisations and 28 participants and were registered on FLU-LAB-NET. A further 30 Members, Affiliates and Institutes/Organisations involved in 'Institute-to-Institute' Discussion Forums were also registered, with 114 new participating personnel. In total, 38 new Institutes and Organisations and 142 personnel have joined the project.

Furthermore, levels of FLU-LAB-NET project activity and engagement by participants have been well maintained, coupled with a substantially increased range and volume of site resources and content, most notably via participant contributions to the web-based collaborative 'Forums' and 'Download' areas of FLU-LAB-NET.

The FLU-LAB-NET Forums provide a web-based collaborative workspace enabling targeted discussions and knowledge sharing. These Forums encompass discussion areas for Project Partners and Members of the Internal and External Networks, as well as providing a resource for 'Institute-to-Institute' discussions, typically relating to specific programmes of work and/or shared project objectives (Table 1.1). In total, there are 27 Discussion Forums available containing 170 Threads and 501 Posts (as of 30th March 2010). During the current reporting period the Forums have shown substantial expansion in both activity and content when compared with the first project-reporting period (1st May 2007 to 31 October 2008). A total of 11 Forums (69% increase), 87 Threads (105% increase) and 258 Posts (106% increase) have been added. More specifically, there have been six new FLU-LAB-NET Partner discussion Forums with 61 new Threads (88% increase) and 204 new Posts (97% increase) added. A diverse range of laboratory focused topics have been discussed including: AI laboratory testing strategies; proficiency panels and results; 'hot news' on AI outbreaks in the EU; new and additional methodology for the detection of influenza A viruses by real-time RT-PCR (RRT-PCR), including H5, H7 and H9 AI viruses and Pandemic (H1N1) 2009 viruses; molecular epidemiology; use of extraction robots; AI/PMV questionnaires; RRT-PCR test developments, validation and ongoing 'fitness for purpose' testing. Two redundant forums were also removed.

A further six new 'Institute-to-Institute' Discussion Forums were also added, with 22 new Threads (367% increase) and 60 new Posts (375% increase). These FLU-LAB-NET Forums have provided a platform enabling the coordination of research efforts (eg. FLUTEST, the European Swine Flu Consortium, ESNIP-3, EPIZONE, OIE Twinning projects), and a range of other specific research activities including data sharing and exchange and the development and sharing of expertise at an international level, involving both Internal and External Partners/Members and strategically relevant Institutes and Organisations, for both AI and Pandemic (H1N1) 2009 virus.

The FLU-LAB-NET 'Download' facility area provides a collaborative workspace allowing knowledge sharing by two-way document exchange, which has continued to be very successful

with significant usage. As of 30th April 2010, the site has a total of eleven primary Download areas containing 233 Download files. These files have been viewed a total of 3,963 times with 3,177 downloads, representing significant levels of activity relating to this shared FLU-LAB-NET resource (Table 1.2).

During the current reporting period three new FLU-LAB-NET Download areas (38% increase) and 81 Download files (53% increase) were added. From all eleven Download areas, there were a total of 2,056 more Views (108% increase) and 1,825 Downloads (135% increase). In addition, the overall Views:Downloads ratio increased from 0.71 to 0.80, indicating that the site content is highly relevant and targeted to the Institutes and Organisations engaged in the FLU-LAB-NET project. Furthermore, the number of Download files available for the Internal Network increased from six to 28 (367% increase), with a total of 1,287 Views (315% increase) and 1,249 Downloads (503% increase) during the current reporting period. The Internal Network Views:Downloads ratio increased from 0.61 to 0.97, further reinforcing the highly relevant and targeted nature of the resources that have been made available to the Internal Network project Partners and Members.

During the current reporting period the FLU-LAB-NET project has identified five specific areas of Exploitable knowledge focussed on knowledge sharing activities and applications. This includes a "Visual SoP" [Standard Operating Procedure] training film demonstrating real time RT-PCR test concepts and procedures. This film is currently hosted on the FLU-LAB-NET public website: http://www.flu-lab-net.eu/Video_Training.html. A series of five other short training videos covering key aspects of laboratory biosafety and biosecurity are also envisaged. Production is underway following on from initial scoping, conceptualisation and prioritisation. The FLU-LAB-NET public website (www.flu-lab-net.eu) also provides a useful resource available in the public domain.

In line with the four stated core objectives, FLU-LAB-NET has developed and continues to implement opportunities for the ongoing enhancement and reinforcement of both the CRL and NRL Internal network within the EU (as envisaged by WP3). 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 people. 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 and 'Institute-to-Institute' Discussion Forums (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 influenza scenarios.

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

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*P6 and P43 are the same legal entity