Workplan 2016-2017 for the EURL for fish diseases

	Description	Objectives	Expected outputs
		1. Coordination and training	
1-1	Annual workshop	Organize and prepare for the 20th and 21st Annual Workshops for the National Reference Laboratories for Fish Diseases (NRLs) in 2016 and 2017, respectively	To be held during the final week of May in 2016 and 2017
1-2	Annual workshop report	Produce a technical and financial report from the Annual Workshops in 2016 and 2017, respectively.	To be finalized and submitted August 2016 and August 2017
1-3	Survey& diagnosis	Collect and report data on the fish disease situation in EU, including all the listed non-exotic fish diseases given in Council Directive 2006/88/EC Annex IV Part 2.	A questionnaire will be submitted in January 2016 and January 2017 and data collated for the Annual Workshops in May.
1-4	Training	Facilitate and provide training in laboratory diagnosis. The yearly training courses in methods used for diagnosis of fish diseases will be offered to the EURL laboratory facilities. The courses will primarily be for training of staff from NRLs and the content will depend on request from participants.	Training courses are provided fall (temptative October-November) 2016 and 2017; two courses each year of 3-5 days each with expected 15 participants are foreseen.
1-5	Scientific working group	Organize specific scientific meeting collating international experts to assess and provide recommendations on management and control of emerging diseases problems in EU.	One meeting gathering 5 to 7 international experts will be held at our premises or on spot according to disease case in 2016 and 2017 respectively. Scientific reports and recommendations will be delivered afterwards to relevant stakeholders.
2-1	Proficiency tests	Prepare the Annual Inter-laboratory Proficiency Tests year 2016 and 2017 for the NRLs. The tests will include VHSV, IHNV, EHNV, ISAV, and KHV and will also address other common viral pathogens in fish farming (IPNV, SVCV, SAV, Ranaviruses etc)	To be shipped fall 2016 and 2017, respectively (tentatively mid-September)
2-2	PT reports	Collate and analyze information gained from the Inter-laboratory Proficiency Tests	Report for the proficiency test 2015 will be submitted February 2016, while results of the 2016 tests will be finally collated December 2016 and reported in 2017. The 2017 PT will be reported early 2018.
3-1	Supply of Reagents	Supply reference reagents to the NRLs in Member States.	Reagents as monoclonal antibodies, rabbit antisera, pathogen isolates or cell cultures are expected to be send to approx 15 laboratories in 2016 and 2017, respectively.
3-2	Production of reagents	Production of diagnostic reagents against selected pathogens when necessary	Diagnostic reagents (i.e. polyclonal antibodies raised in rabbit, monoclonal antibodies from stored hybridoma cells or In Situ Hybridization -ISH probes) will be produced according to demand

3-3	Pathogen library	Update and maintain a library of isolates of Infectious salmon anaemia virus (ISAV), Viral Haemorrhagic Septicaemia virus (VHSV) and Infectious Hematopoietic Necrosis virus (IHNV), Koi Herpes virus (KHV) and Enzootic Hematopoietic Necrosis virus (EHNV) and other relevant putative emerging fish pathogens.	The library will be updated with 10 to 20 pathogen isolates both year
4-1	Webpage	Update the webpage for the EURL, www.eurl-fish.eu	Keep the webpage constantly updated, uploading relevant material (e.g. AW report, AW presentations, Training course report etc.,)
4-2	Diagnostic manuals	Update the diagnostic manuals for VHS, IHN, ISA, KHV disease, EHN on the EURL web page.	The diagnostic manual for sampling and detection of listed non-exotic diseases was finally adopted in 2015. But as the diagnostic procedures for identification and surveillance of the listed diseases is rapidly evolving new procedures will be assessed and validated for inclusion in the first revision of the diagnostic manual.
4-3	FishRefLabNet	Maintain and further develop the interactive network with the NRLs, FishRefLabNet, in order to promote a proactive data sharing and communication with and between reference laboratories in the Member States.	The webpage and mailing list based platform for communication and data sharing will be continued with periodical updates sent to all members that subscribed.
4-4	Pathogen characterization	Identify and characterize selected isolates of listed viruses (pathogenicity testing in-vivo and in-vitro, serological and genetic characterization).	The EURL receive every year strains and samples for corroboration of diagnostic results in EU Member states. Regularly these strains must be characterized properly as an emergency response to avoid unwanted spreading of new pathogens in EU
4-5	www.fishpathogens.eu	Update and expand www.fishpathogens.eu with more pathogens.	The database is a valuable tool for virus characterisation and molecular epidemiology. The more isolates included the stronger the tool. New databases on other listed and emerging pathogens are in the pipeline such as a database on SAV (pancreas disease and sleeping disease viruses). At least 50 new isolates are envisaged to be included and 1 new database opened in 2016 and 2017.
4-6	Molecular epidemiology	Perform molecular epidemiological analysis to improve knowledge on diseases spreading mechanisms of the listed viral fish pathogens.	A study involving isolates from several Continental European countries is envisaged.
4-7	Real-time PCR	Assessment and standardisation of real-time PCR tests for the diagnosis, identification and typing of emerging and the listed non-exotic and exotic fish diseases.	Real-time PCR is a highly sensitive and specific tool for diagnosis and surveillance of a number of listed pathogens. Published and non-published methods will be assessed in our premises in order to offer validated protocols for the NRL´s

4-8	Emerging diseases	In collaboration with specialised experts WW to review selected emerging fish diseases in Europe and assess their potential listing as exotic or non-exotic diseases	Due to increased international trade of fish focus will be given to emerging diseases and rapid response. An assessment of risk for contracting and spreading emerging and re-emerging diseases in EU will be enforced in 2016 and 2017 (e.g. CEV – Koi sleepy disease; Piscine orthoreovirus infections in Rainbow trout and salmon, RLO-Rickettsia like organism in Sea bass, new high virulent strains of IHNV etc.)
4-9	Producing virtual teaching material (e-learning)	Preparing virtual guidelines for conducting proficiency tests. For sampling and shipment of material for laboratory examination; and for receipt and processing fish tissue material for virology (inoculation on cell cultures and for PCR analysis) and histopathology	Set up tools for producing e-tutorials in-house. One tutorial on Dissection of fish for sampling for histopathology will be produced.
4-10	Molecular characterization of fish cell lines	Perform molecular analysis to "bar-code" and certify cell lines routinely used for viral diagnostics.	Misclassification of cell culture has been an issue constantly affecting cell culture work in terrestrial animals (including humans). In order to guarantee uniform and certified cell lines, genetic characterization and certification of relevant fish cell lines (i.e. EPC, BF-2) will be implementedd
5-1	Missions	Organizing missions to relevant laboratories in EU and in third countries. Missions will focus on NRLs where on-site communication would be beneficial. As collaboration with NRLs in 3rd countries from where EU is importing large amount of fish products is increasing, missions to these, e.g. China and Korea is foreseen	1-2 missions will be conducted each year. The laboratories to visit will be appointed in order to strengthen collaboration in the NRL network. (e.g. Spain, France, Korea, Iran etc…)
5-2	International meetings	Attending missions, international meetings and conferences in order to be updated on emerging and listed exotic and non-exotic fish diseases.	The EURL expect to participate in 2 to 3 international conferences each year.