

Work package number	5	Start Date or Starting Event				M1
Work package title¹	Centre of excellence					
Participant number	1					
Short name of participant	ILL					
Person/months per participant²:						
Start month	1			End month	48	

Objectives:

-Explain the user profiles-

This work package has three main objectives corresponding to the three main user profiles:

- For academic usage, we aim to provide enhanced support and especially to novice users in order to ensure the best possible use of the facility and address all specificities and sometime difficulties that appear during the journey of the visiting scientist from the scientific idea to the communication of a result. This is further referred as “Centre of Excellence”
- For industrial usage (dedicated team - centre of excellence could also apply)
- Concerning industrial usage via academia. It is understood that about one quarter of the academic experiments made at ILL are linked to industry. Industrial partners very often have directed collaborations with Academic or university research groups. These research groups provide the interface between the industrial users and the research facility. In a changing research environment for industry where interdisciplinary problem solving and developments are more and more important. It is in no way the intention of the ILL to intervene in this established relationship between industry and academia. To better understand the service provide by academia to the industrial partner and to provide a reflection on introduction and increase of dedicated service to academia to facilitate their collaboration.

“Center of excellence” objectives:

The ILL is a scientific service institute which give access to its infrastructure via a proposal system based on scientific excellence. It is notoriously difficult for a novice scientist to write a proposal getting positive attention of the review committees, to select the right technique and describe a feasible experiment plot, to identify an in-house expert that could answer open questions and help improving the proposal, in order to get finally beam time accepted.

Once a proposal has been accepted, sample preparation for a particular technique could also be a challenge (degree of purity, size, weight, isotopic composition ...). Prior characterisation may be required on top of this to prepare a successful experiment.

¹ The title of work packages for access provision must be preceded by the indication of the type of activity (TA: Trans-national Access or VA: Virtual Access);

² Except human effort already included in the calculation of the unit costs.

During experiments all ILL users already do receive adequate support from the internal expert and technical services, this includes help for data reduction.

It is further crucial for a novice to receive assistance during data analysis, which may involve the use of complex, usually domain specific software.

Nowadays, data management is also more and more important for the scientific ecosystem. Beside the dedicated infrastructure (archive and access to the data) and services (authorization management, DOI registration ...) provided by the ILL, it is also the responsibility of the scientists to ensure proper recording of all necessary information alongside the experiment in order to make the data archive truly shareable, traceable, open and ultimately valuable for the community.

The final aim of all scientific research work is to be reported properly, usually done by publication in peer reviewed journals. For the redaction of a successful manuscript, in particular the experimental section and the data interpretation need close involvement of the neutron expert.

The aim of this work is to improve user services and in particular to provide full and close assistance to new neutron users at each of the steps described before.

To reach this goal, we need to hire 5 qualified persons (post docs), who will on one hand ensure the better exploitation of the level of expertise and excellence of the ILL staff and facilities, and on the other hand will benefit of their stay at the institute to be trained themselves, so becoming potential ambassadors for future new users in their home countries.

Description of work

Task1: Center of Excellence - improving the service for academic users

Task 1.1:

Set up a web portal for helping potential users to express their needs and get in contact with the relevant expert, who will then decide how the ILL can provide the right answer to his problem. Identify promising idea and organise proper reply.

Task 1.2: Provide assistance for proposal writing.

Once the idea has been clarified, novice users need to be directed for the choice of the instruments, the setup, the description of samples, and the experiment and eventually on writing the proposal in a way that the members of the selection committees easily understand the excellence of the proposal and allocate beam time.

Task 1.3: Assistance for sample preparation and characterisation in preparation for the coming experiment.

Sample preparation is an important step for ensuring optimal condition during experiment.

Task 1.4: Provide enhanced Assistance during experiment

This include data reduction, preliminary data analysis and data management

Task 1.5: Provide assistance for remote data analysis, interpretation and publication of the results

Task 1.6: Analysis of impact

Number of proposals / beam time accepted

Ratio of experiment / publication and beam days / publication

Speed of publication - time between experiment and publication,

Impact of the publication (altemetrics, number of citation)

Task 2: Industry

Task 3: Industry via academia

Analyse of submitted research proposal, do survey on services need by these users needed and propose an implementation plan.

Deliverables (brief description and month of delivery)

Table 3.1 b: List of work packages

Work package No	Work Package Title	Lead Participant No	Lead Participant Short Name	Person-Months	Start Month	End month
				Total months		

Table 3.1 c: List of Deliverables³

Deliverable (number)	Deliverable name	Work package number	Short name of lead participant	Type	Dissemination level	Delivery date (in months)
5.1	Web portal	5	ILL	DEC	PU	6
5.2	Assistance in proposal writing	5	ILL	R	PU	12
5.3	Assistance during experiment	5	ILL	R	PU	
5.4	Assistance for analysis and publication	5	ILL	R	PU	
5.6	Monitoring	5	ILL	R	PU	Yearly
5.7	Post docs hiring	5	ILL	?	PU	6

³ If your action is taking part in the Pilot on Open Research Data, you must include a data management plan as a distinct deliverable within the first 6 months of the project. This deliverable will evolve during the lifetime of the project in order to present the status of the project's reflections on data management. A template for such a plan is available on the Participant Portal (Guide on Data Management).

KEY

Deliverable numbers in order of delivery dates. Please use the numbering convention <WP number>.<number of deliverable within that WP>.

For example, deliverable 4.2 would be the second deliverable from work package 4.

Type:

Use one of the following codes:

R: Document, report (excluding the periodic or final report)

DEC: Websites, patents filing, market studies, press & media actions, videos, etc.

OTHER: Software, technical diagram, etc.

Dissemination level:

Use one of the following codes:

PU = Public, fully open, e.g. web

CO = Confidential, restricted under conditions set out in Model Grant Agreement

CI = Classified, information as referred to in Commission Decision 2001/844/EC.

Delivery date

Measured in months from the project start date (month 1)