

Icat@ill

In 5 min

A bit of history

- 2009 start of the ILL ICAT installation and first meeting on the DP.
- Development of the ILL web interface:
<http://icatprod.ill.fr:8585/icat>
- ...
- Dec 2011, publication of the ILL Data Policy
<http://www.ill.eu/users/ill-data-policy/>

Only now we can start working efficiently:
The project has moved from an IT project to an ILL project.

Our technical difficulties

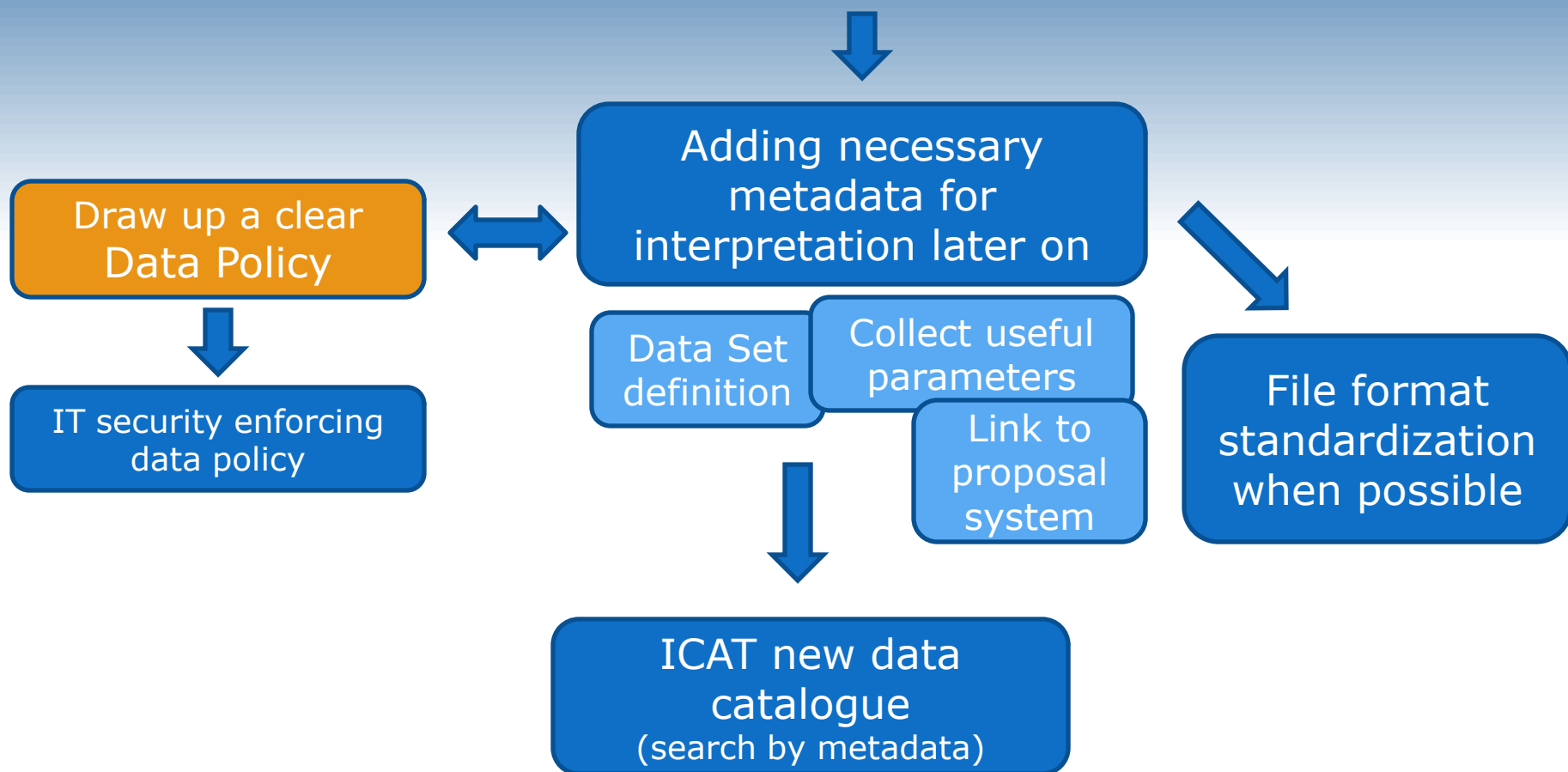
- Lack of systematic link between the raw data and proposals and finally users.
- Too many data formats => Ingestion is a nightmare.
- What are the useful experimental parameters?
- Ontology, diversity of naming conventions.
- Doing things urgently => bad coding strategy (use of SQL statements instead of developing Web Services)

Today

- Scientists are on board (DPP).
- 19th of April, test of 'fake' user authentication on IC workstation.
- Installation of ICAT 4.0 and TopCat.
- ICAT 4.0/1 vs ICAT 3.3 for the rollout?
- Ingestion production planned for September (DP official introduction)
- The ILL DP might require some works on the access right management.

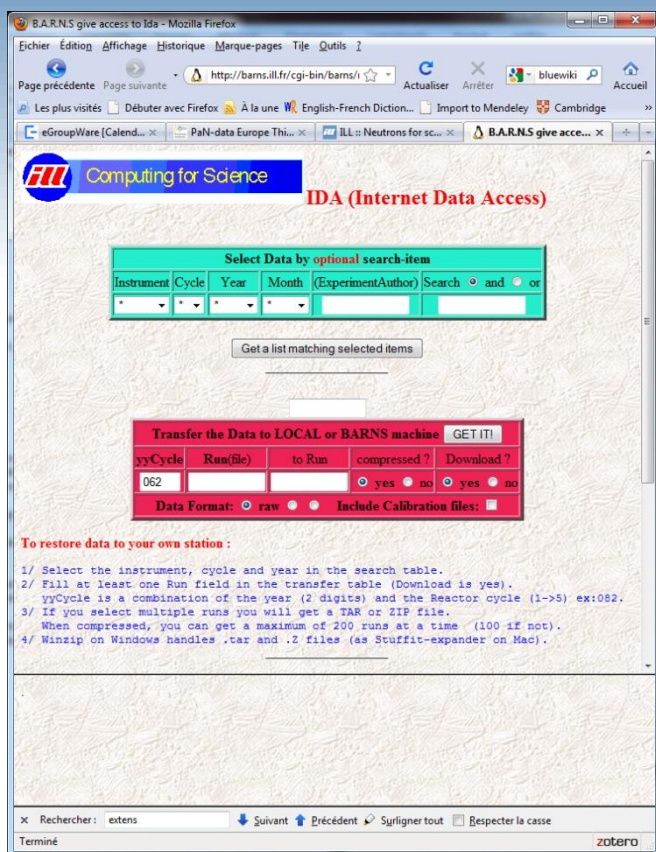
A global picture

**Increase scientific data value
Long term data curation**



ICAT a successor to IDA

<http://icat.ill.fr:8585/icat/>



Computing for Science
IDA (Internet Data Access)

Select Data by optional search-item

Instrument	Cycle	Year	Month	(Experiment/Author)	Search	and	or

Get a list matching selected items

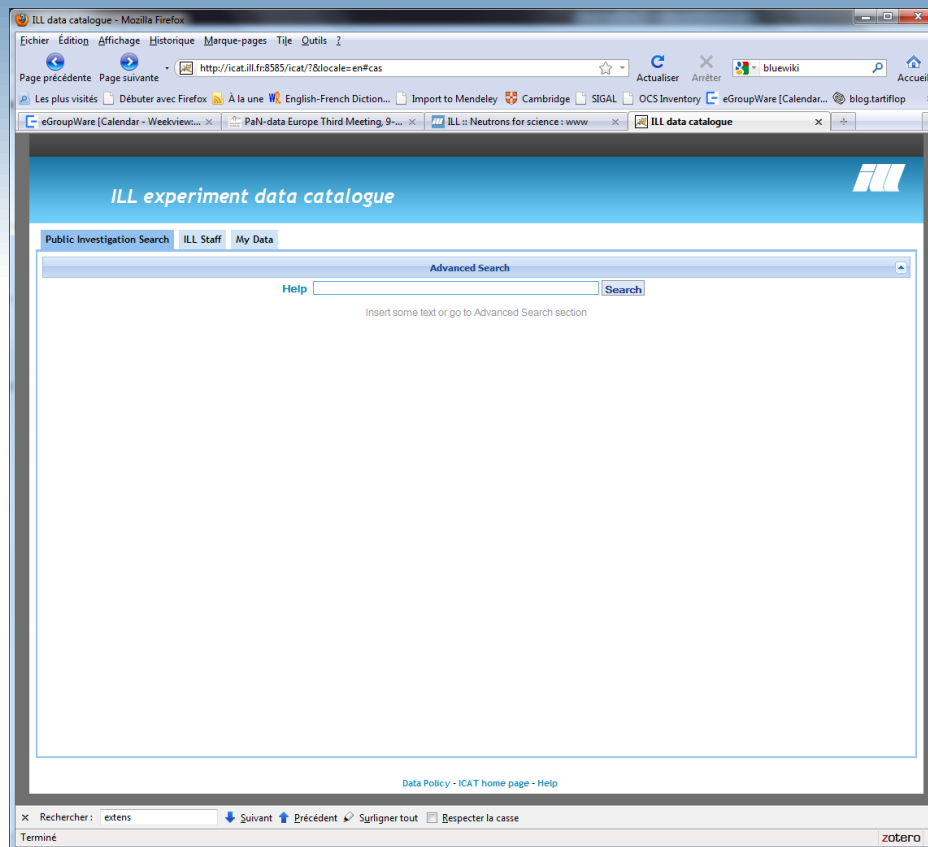
Transfer the Data to LOCAL or BARN.S machine **GET IT!**

yyCycle	Run(file)	to Run	compressed?	Download?
062			<input checked="" type="radio"/> yes <input type="radio"/> no	<input checked="" type="radio"/> yes <input type="radio"/> no

Data Format: raw Include Calibration files:

To restore data to your own station:

- 1/ Select the instrument, cycle and year in the search table.
- 2/ Fill at least one Run field in the transfer table (Download is yes).
yyCycle is a combination of the year (2 digits) and the Reactor cycle (1->5) ex:062.
- 3/ If you select multiple runs you will get a TAR or ZIP file.
When compressed, you can get a maximum of 200 runs at a time (100 if not).
- 4/ Winzip on Windows handles .tar and .z files (as Stuffit-expander on Mac).



ILL experiment data catalogue

Public Investigation Search ILL Staff My Data

Advanced Search

Help Search

Insert some text or go to Advanced Search section

Data Policy - ICAT home page - Help

iCat@ill status

- Ongoing
 - Migration to iCat V4.0
 - Web interface : the ILL one of TopCat ?
 - We are currently installing topcat for testing
- To be done
 - **Seal the link between proposals and data files**
 - Implement Access Right management according to the Data Policy (workflow, interfaces, ...)
 - Validate the ingestion process
 - DOI implementation
 - Rollout and communication

Technical contact: Holger Gebhard gebhard@ill.eu or Me

User Authentication

- The problem : currently all applications have their own local repository
- End of February – Merge of the different accounts (1st step accounts from VC)
- Next : typo, forge, wifi, storage, computers
- Evaluation of the EU wide authentication

Project contact : Fabien Pinet pinet@ill.eu or Me

Storage

- Security: ACLs implementation and access protocols NFSv4, CIFS, ...
- Adding more informations (images, log, E-Logbook ...) – Folder structure change ?
- Facing the volume growth – change in the infrastructure solution (FS compression, deduplication, decrease the cost per TB, ...)

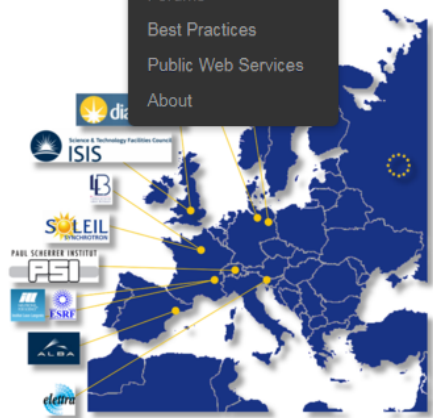
Project leader: Remy Mudingay mudingay@ill.eu

Projects on the EU side.

PaNdata-Europe, PaNdata-ODI, CRISP, NMI3, PaNgea, ...

- EU Common Authentication
- Evolution of iCat (data mining, cross repository search, link with the publications, LT Preservation – OAIS)
- Software analysis catalogue – PaNSoft
- High-speed Data Recording
- ...

- Forums
- Best Practices
- Public Web Services
- About



Photon and Neutron Software Catalogue

PaNsoft is a database of software used mainly for data analysis of neutron and photon experiments. PaNsoft is one element of a larger project, PaNdata, which aims to provide a complete, shared data infrastructure for neutron and photon laboratories.

This database can be freely consulted. It gives an overview of software available for neutron and photon experiments and their use with respect to instruments at experimental facilities.

By [registering](#) and [logging-in](#) new software can be entered and it will appear in the database after moderation. Similarly, feedback can be given on the software presented herein and more generally via the forum hosted here.

[Browse software](#)

Software: [Recent Software](#) [Popular Software](#)

Recent Software

NAMD

NAMD is a parallel molecular dynamics code designed for high-performance simulation of large biomolecular systems.

PORE3D

large software suite for filtering, segmentation and quantitative analysis of 3D images (CT, MRI, CLSM, ...).

Ominc

Logiciel d'acquisition des spectres infrarouge. Ce logiciel permet aussi un de créer des cartographies

IMOD

IMOD is a set of image processing, modeling and display programs used for tomographic reconstruction and for 3D reconstruction of EM serial sections and optical sections.

IVE+PRIISM

collection of tools for processing, analyzing, and visualizing multidimensional imagery with a focus on 3D wide-field optical microscopy and EM tomography

Our expectation from that group

- Help to communicate
 - With the other ILL scientists
 - With the users
- Give your feedback
- Validate – Test - Bring your scientific expertise
- Bring the real users' needs - Propose ideas
- Work together closer than in the past
- Your support