

CSIR Leadership for Innovation and Future Framework (CLIFF)

Summary of the 2-day Brainstorm deliberation
TOWARDS ENABLING IT- TRANSFORMATION IN CSIR
NIO, Goa, 13 and 14 April 2009

1. PURPOSE

The purpose of this CLIFF-organized deliberation was to search for an integrated seamless IT-model in all the constituent institutions including Headquarter of CSIR to put-in-place e-governance. CLIFF is a forum to act as Change Agent to help the CSIR and its institutions to improve their Performance, Relevance and Impact (PRI).

2. OBJECTIVES

- (a) To evaluate the current status of e-governance in various CSIR institutions
- (b) To assess pros and cons of various models and modules being used presently in labs
- (c) To examine the level of involvement of staff - attitudinal constraints faced
- (d) To search for an integrated IT- model for the entire CSIR to implement e-governance
- (e) To work out an action plan to install the identified IT-model in various labs

3. PARTICIPANTS

In all, 25 persons from 13 institutions plus CSIR (Hq.) participated in this limited and exploratory brainstorming. The break-up of participant roles relevant to the meeting includes 10 IT-managers or their representatives, 11 user-Scientists, and one each from Administration, Stores, Purchase and Documentation (Library).

4. CURRENT STATUS

A presentation was made on ICT project of the CSIR through which majority of the constituent laboratories have already received support for hardware development (PCs, connectivity, web-conference, etc). However, appropriate software and human-ware to develop and implement IT-Models to facilitate e-governance were not available for all institutes. CLIFF focuses on this part.

Based on the present level of development and usage of IT-modules, the laboratories in CSIR could be divided into three tiers. **Tier-I** (With well-developed modules) exemplified by NIO, NCL; **Tier-II** (Moderately developed modules) exemplified by CFTRI, NAL, NPL; and **Tier-III** (Modules still being developed) as in case of CIMAP, NEERI, NPL, IMMT, IGIB, It was however mentioned that IICT, and IICB might have reasonably developed IT-modules. The modules here refer to all components of the full IT-enabled CSIR as planned under the CSIR IT project.

The **NIO model** is based on Lotus Notes (on a Linux server) and was developed in-house (*code owned by NIO*). The model is in vogue for the last 15 years. It is user-friendly and has penetrated to every level of application and activities- R&D, Library, Stores, Purchase, Accounts, Admn, PME, HR, BDG, ISTAG, etc.

The **NCL model** is based on Microsoft-active and is being developed by Wipro (*code owned by Wipro*). This also appears to be a good model but needs more testing as it is expected to be operational only by December 2009.

5. CONSTRAINTS

The major constraints in developing and implementing IT-models for e-governance in various laboratories are- (a) lack of training for the users and inability to obtain the support of the relevant staff (adm., accounts, stores, purchase etc); (b) recalcitrant attitude of many support-sector staff, (c) modules are largely made out-house without appreciating the exact needs of the Institute functions, (d) non-acceptance of digital signature, (e) lack of push from the top hierarchies, (f) lack of communication amongst the different CSIR laboratories on the status of respective IT-modules.

6. PROSPECTIVE MODELS

The Meet accepted the innovative, flexible, home-grown, and user-friendly NIO model as one that could be used by the CSIR. The NEERI, IGIB, IMMT, and CIMAP evinced interest to explore the possibility to test the NIO Model in their labs. This model appears to address almost all

components any CSIR lab including Headquarter would need to make CSIR ready to contribute in National Knowledge Commission (NKN) activity. The URDIP could examine packaging the NIO model for sale & service to the interested laboratories at a price.

However, the Meet also felt that since some laboratories may already have committed substantial amount to develop IT-model on outsource basis, it is not necessary to have only one module for the entire CSIR. The CSIR could as well accommodate two-to-three models distributed over 38 labs, but with strong interface facility so that all common tasks and functions are enabled under the same formats and rules.

7. ACTION PLAN

- A. The Meet proposed to form a 10-member **TASK FORCE** to-
- (i) Examine in details the IT-models of NIO, IICT, IICB and NCL, and the smaller modules of other labs and further consider the option of brainstorming amongst IT managers of all CSIR institutes.
 - (ii) Arrange addition of specific modules to the existing models, if required (i.e., value addition).
 - (iii) Arrive at strong interface mechanism among the models.
 - (iv) Workout the mechanism of packaging, sale and service by URDIP (Pune).
 - (v) Explore methods to strengthen the National Knowledge Bank by enriching and linking the local repositories.
 - (vi) Examine a single-entry mechanism for access through a CSIR website with links to all labs., and the possibility of having staff email address like- [name@igib.csir.in](mailto:_____@igib.csir.in) / [name@ncl.csir.in](mailto:_____@ncl.csir.in), respectively for a scientist in IGIB and NCL.
 - (vii) Finalize modality of testing and installation of the selected Models in various labs.
- B. The Task Force is to largely discuss over emails and through video-conferences, and subsequently meet once physically to finalize its Dossier / Report initiated earlier through emails and video-conferences. The Task Force is to submit the Dossier / Report to the CLIFF IT-mission secretariat* by **15 May 2009**.
- C. The Task Force will consist of HK Sardana (**Convenor**), A Wahid (CSIR HQ), D. Dash (ICT/IGIB), S Gadhe (URDIP), KD Deshpande (NCL), A Gouveia (NIO), Lata K (NAL), IT managers of IICB, IICT, and CFTRI.
- D. An approximate cost estimate was worked-out to install and operate the versatile NIO Model in laboratories that may not have developed IT-Model or be at the initial stages of development. For installation and smooth running of the Model, a laboratory would need (a) 1 server (~500k Rupees), (b) License for server (~80k Rupees), (c) license for say 150 clients (~525k Rupees), (d) 3 developer's license (~105k Rupees) = **~1200k Rupees (i.e., approximately Rupees 12 Lakhs)**. Cost for appropriate AMC and training for work force may be added to this amount.
- E. It was decided to inform the Directors of all CSIR laboratories about the outcome of the CLIFF meeting with a request to inform the CLIFF IT-mission Secretariat* at an early date about the IT-Model used by his/her laboratory towards e-governance, level of its utilization, and willingness to examine the NIO model. Acquisition of necessary hard- and software for the NIO model could be done expeditiously taking help of already customized mechanism.
- F. The participants later discussed the outcome of the meeting over a 35-minutes video-conference with the Director General, CSIR, Dr. Naresh Kumar and Dr. S. Sivaram. **DG-CSIR showed interest in the available IT-models and suggested CLIFF to move fast to bring in e-governance in the CSIR with a view to improve PRI of the organization.**

* Address for Correspondence with CLIFF IT-mission Secretariat:

1. Ranadhir Mukhopadhyay, Convenor, Goa Meeting (E-mail: ranadhir@nio.org; Mob: 09422438821)
2. H K Sardana, Convenor, CLIFF Task Force (E-mail: hk_sardana@hotmail.com; Mob: 09872805924)
3. Shirish Ranade, CLIFF Core Committee (E-mail: shirishranade@yahoo.com; Mob: 09889001758)