Chapter 33

Council of Scientific & Industrial Research - CSIR

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I) OVERVIEW

CSIR has taken an initiative for the organizational level transformation in which most of the document based work will be converted into electronic workflow with minimal involvement of physical document movement. CSIR has identified six best of the breed packages to facilitate the Enterprise Transformation and ICT intervention Project.

II) RESULT INDICATORS

1. Key Performance

a. Services (G2C, G2B, G2G and G2E) delivered using ICT ; impact in terms of time and cost of delivery of services:

Government to Citizen (G2C)

- RTI queries – RTI queries are being handled by system and sent to the concerned section/lab through e-Dak system and reply is posted to the citizen resulting in efficient service delivery.
- Web Portal services on "CSIR-800", a project for rural technologies benefitting the common man.
- Online nomination, review and selection of Awardees for Shanthi Swarup Bhatnagar Award, Young Science Award, GNRamanchandran Award, etc.

Government to Business (G2B)

- Technology Showcase provided electronically for users like industries and entrepreneurs.
- Technology queries are handling electronically for improved service delivery

Government to Government (G2G)

- Online processing of queries from Ministers, Parliamentarians and other VIP references. Secured Electronic transaction has resulted in efficient and quick responses to these dignitaries thereby fulfilling their societal obligations.
- Handling of Parliamentary Questions through electronic work flow solution encompassing 37 labs located all across the country has resulted in timely delivery of details asked for fulfilling the parliament obligations.

Government to Employees(G2E)

- All employee self services like GPF advances, claims, leave applications, etc
- Grievance redressal system through online interactions
- Inter office communications through Intranet Portal
- Video Conference, webinar and e-Learning modules for employee competency building
- Since long it has been observed that the manual way of processing these transactions is time and cost consuming causing inconvenience to the recipient at several occasions.
- The deployed application evolved CSIR into an integrated enterprise in terms of the transaction processing. CSIR can then do away with sending and receiving the physical paper correspondences (Letters/Couriers) to its 39 labs for the processes being automated, thus saving on cost and time.

b. Implementation coverage till date and during the year (geographical areas covered under pilot, roll-out, future plans)

Sl No	Divisions To be Automated & Geographical area covered	Coverage Till Date	Covered under Pilot	Roll Out	Future Plans
1	CSIR HQRS, New Delhi	70 %	20%	50%	30%
2	Advanced Materials and Processes Research Institute (AMPRI), Bhopal	70 %	20%	50%	30%
3	Central Building Research Institute, Roorkee	70 %	20%	50%	30%
4	Centre for Cellular & Molecular Biology, Hyderabad	70 %	20%	50%	30%
5	Central Drug Research Institute, Lucknow	70 %	20%	50%	30%
6	Central Electrochemical Research Institute, Karaikudi	70 %	20%	50%	30%
7	Central Electronics Engineering Research Institute, Pilani	70 %	20%	50%	30%
8	Central Institute of Mining and Fuel Research, Dhanbad (CFRI Campus)	70 %	20%	50%	30%
9	Central Food Technological Research Institute, Mysore	70 %	20%	50%	30%
10	Central Glass & Ceramic Research Institute, Kolkata	70 %	20%	50%	30%
11	Central Institute of Medicinal & Aromatic Plants, Lucknow	70 %	20%	50%	30%
12	Central Leather Research Institute, Chennai	70 %	20%	50%	30%
13	Central Mechanical Engineering Research Institute, Durgapur	70 %	20%	50%	30%
14	CSIR Centre for Mathematical Modelling & Computer Simulation, Bangalore	70 %	20%	50%	30%

15	Central Institute of Mining and Fuel Research, Dhanbad (CMRI Campus)	70 %	20%	50%	30%
16	Central Road Research Institute, New Delhi	70 %	20%	50%	30%
17	Central Scientific Instruments Organisation, Chandigarh	70 %	20%	50%	30%
18	CSIR Madras Complex, Chennai	70 %	20%	50%	30%
19	Central Salt & Marine Chemicals Research Institute, Bhavnagar	70 %	20%	50%	30%
20	Institute of Genomics and Integrative Biology, Delhi	70 %	20%	50%	30%
21	Institute of Himalayan Bioresource Technology, Palampur	70 %	20%	50%	30%
22	Indian Institute of Chemical Biology, Kolkata	70 %	20%	50%	30%
23	Indian Institute of Chemical Technology, Hyderabad	70 %	20%	50%	30%
24	Indian Institute of Petroleum, DehraDun	70 %	20%	50%	30%
25	Indian Institute of Integrative Medicine(IIIM), Jammu	70 %	20%	50%	30%
26	Indian Institute of Toxicology Research , Lucknow	70 %	20%	50%	30%
27	Institute of Microbial Technology, Chandigarh	70 %	20%	50%	30%
28	Institute of Minerals and Materials Technology(IMMT), Bhubaneswar	70 %	20%	50%	30%
29	National Aerospace Laboratories, Bangalore	70 %	20%	50%	30%
30	National Botanical Research Institute, Lucknow	70 %	20%	50%	30%
31	National Chemical Laboratory, Pune	70 %	20%	50%	30%
32	CSIR Unit for Research and Development of Information Products,Pune	70 %	20%	50%	30%
33	National Environmental Engineering Research Institute, Nagpur	70 %	20%	50%	30%
34	National Geophysical Research Institute, Hyderabad	70 %	20%	50%	30%
35	National Institute for Interdisciplinary Science & Technology, Thiruvananthapuram	70 %	20%	50%	30%
36	National Institute of Oceanography, Goa	70 %	20%	50%	30%
37	National Institute of Science Communication And Information Resources, New Delhi	70 %	20%	50%	30%
38	National Institute of Science, Technology And Development Studies, New Delhi	70 %	20%	50%	30%
39	National Metallurgical Laboratory, Jamshedpur	70 %	20%	50%	30%
40	National Physical Laboratory, New Delhi	70 %	20%	50%	30%
41	North - East Institute of Science and Technology, Jorhat	70 %	20%	50%	30%
42	Structural Engineering Research Centre, Chennai	70 %	20%	50%	30%

2. Government Efficiency Improvement Initiatives

a. Time and cost efficiency improvements in the working & delivery of services

- Centralized transaction of all business processes through electronic methods resulting in standardized policy and process execution across CSIR labs.
- Providing time line for every transaction and system defined escalation matrix, alert notifications, automated reminders for facilitating timely execution and responses.
- Providing transparency in all transactions which is made available through web intranet services.
- System generated MIS reports and dashboards for efficient management of human, financial and material resources.
- E-tendering and e-procurement solution has greatly improvised the material management within the organization and has provided the Scientists with the wealth of knowledge about various resources without any information asymmetry.

There would be significant improvement in terms of functioning, quality of service, level of satisfaction, effective utilization of resources for purposeful and intelligent transactions. CSIR has 37 laboratories all over India and transactions between them takes significant amount of time for file movement. Typically a single case has to flow several times within the lab and between the lab and HQ before it is finally disposed. Actually, less than 10% of the time is spent on the processing/decision making while most of the time is consumed in redundant transactions. The whole system has been re-engineered to cope up with changing needs and requirement for electronic transactions. This system would thereby shorten this time span by 50-60% as any reference would be made within seconds to HQ or vice- versa and reduce file movement delay that normally ranges several days. This would also reduce the cost incurred on postage since inter lab, Lab and headquarters would be reduced significantly.

b. Specific innovative ideas implemented in eGov area; and their impact on services

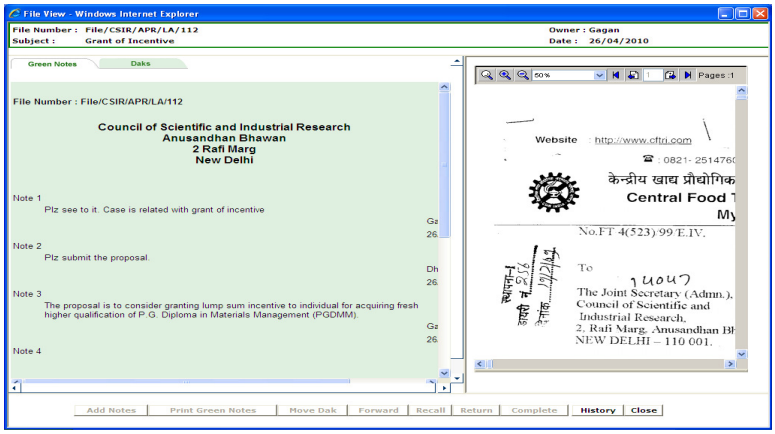
Secretary-Boss-Secretary interactions

The system facilitates such interactions for all the transactions being processed electronically, which in turn helps in capturing the latent information which might get missed in the normal course of processing. This feature acts as an enabler in efficient decision making.

Electronically driven Green Notings:

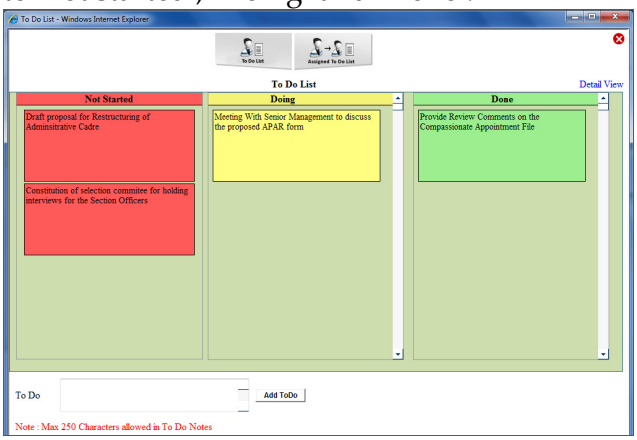
Features such as flagging of the file, file flow through the proper channel/ hierarchy, noting down/ editing comments at each of the phases, digital signatures etc impart agility to the entire system. A note sheet can also be

linked to related notesheets/ files providing relevant information in a given context, thus increasing the efficacy and convenience of the system manifold. The transactions carried out in the system are captured in system logs, thus making the system transparent and allow the convenient tracking of file movement.



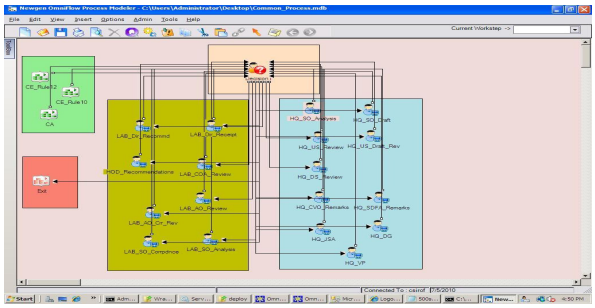
To Do list

This intelligent 'to do list' on an employee's profile page gets updated whenever his superior assigns any work to him/her or the employee himself/herself adds a 'to do item'. The employee's to do item would be the combination of assigned and self assigned items. This interactive 'to do list' automatically senses, keeps track of and automatically updates allocated work to 'not started', 'Doing' and 'Done'.

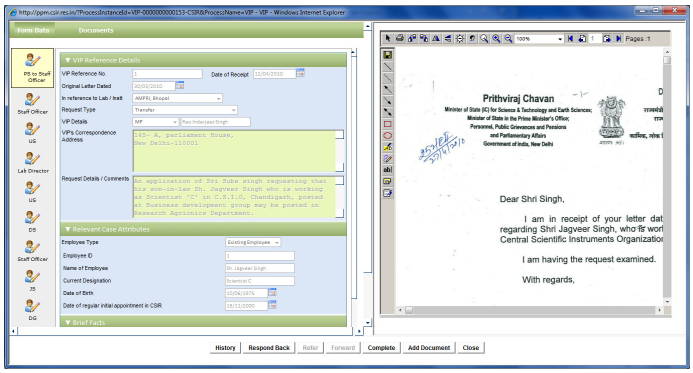


The developed system would cut down on the number of steps that are presently being followed in the manual file processing. The current manual system has defined set of steps as per the manual of office procedure; there are certain steps which are just for the information of the supervisor so as to avoid the timeline misses since the accountability of the execution lies with the supervisor. It is imperative to have such steps in the manual system due to lack of an efficient tracking system but in an automated scenario one can do away with the redundancy.

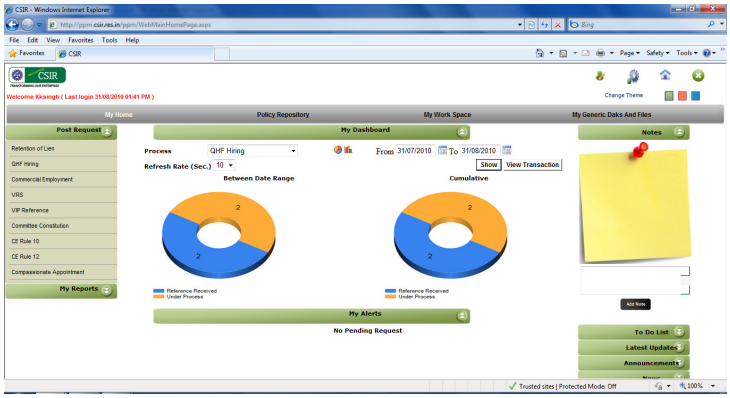
For example Instead of sending the reference/files etc. in a normal organizational hierarchical fashion (from top to bottom officer hierarchy) this system will directly send the files etc. to the concerned officer and only an intimation mail will be sent to the senior official about the work which has been allocated to his subordinate. Additionally, this system is fully configurable and one can configure the current process anytime using the Process Modeler as shown below:

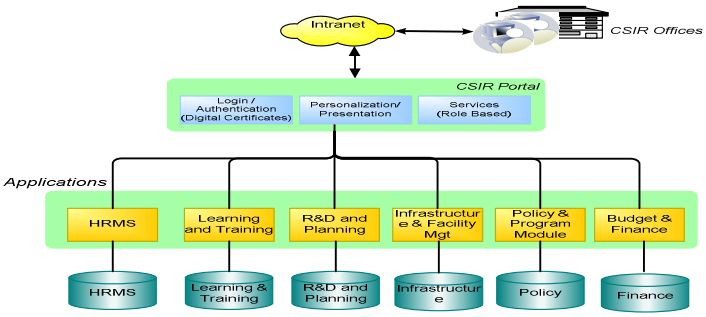


Form Based Transaction



Graphical dashboard





c. Services integrated with other departments

Presently all communication from other departments were scanned and fed into the system and processed through the concerned sections/departments since the entire enterprise application is available only in the intranet access due to security reasons.

III) ENABLER INDICATORS

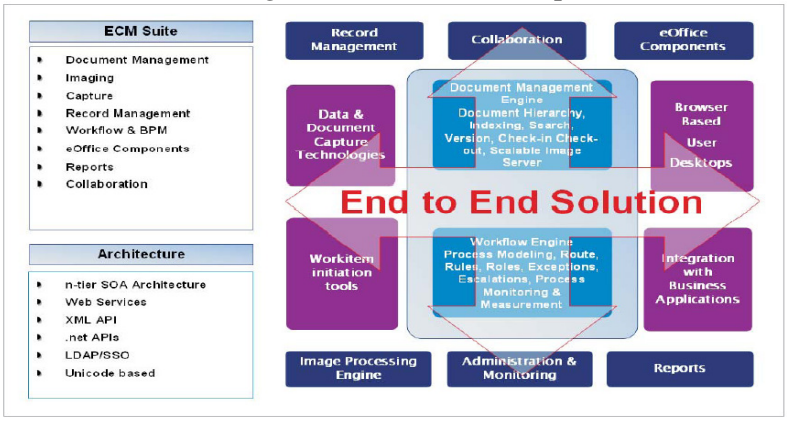
1. Department Policy & Strategy

a. eGov/ICT vision roadmap for department and its current status

Road-map for CSIR envisages:

- Re-engineering the organisational structure;
- Linking research to marketplace;
- Mobilising and Optimising the resource base;
- Creating an enabling infrastructure; and
- Investing in high quality science that will be the harbinger of future technologies

These above goals are being pursued through a comprehensive set of interventions, encompassing both HR and Organisation restructuring, Systems and Management innovations, Reengineered processes and automation, leveraging knowledge through collaboration and instituting mechanisms that augment institutional capacities to innovate and deliver.



b. Technology standardization policy and its implementation

The system has been developed keeping in mind the NKN connectivity which will be spanning across all the labs giving access of 1GbPs. All the labs have already been intimated to upgrade their infrastructure keeping these requirements in mind in order to evolve a standard system across the country.

2. Process Reengineering & Legal Reforms

a. Major front end process changes planned and current status

- Processing of requests is directly coming to the section officers with information via system generated email to the under secretary, division heads and other stakeholders. This will help the superiors keeping a track of the work assignment to the juniors. The status till date is that this has been applied to 70% of the processes while it is in road map for the remaining 30 %.
- In the minutes of meeting and actionable status process allocation and tracking of the actionable is being done through the system. This approach will bring more transparency to the process whereby the ownership of the actionable can easily be established. Also, the actionable can be easily tracked from its identification to assignment to its final achievement. This process change has been implemented.
- The Policy Clarification/Interpretation, Policy Creation/Amendment, Legal advice requests are not being received by received by Dak. Since, all the users internal to CSIR , requests can be posted electronically to the concerned division. This practice has helped reducing the turnaround time considerably.

b. Major back end process changes planned and current status

- A purposive change transformation in CSIR being pursued aims to (a) Infuse enhanced level of proficiency in our administrative and technical cadre (b) Building a dynamic performing culture that leverages technology solutions for improved quality of services to employees, as also to stake holders.

- As part of the comprehensive set of interventions, efforts are also being made to reinvent policies and practices to build our enterprise to guarantee results and look at 'opportunities' rather than 'problems' in getting things done.

- In this context, it is important that the Officers of the administrative and technical cadre involve themselves proactively to execute the required changes in the manner envisaged.

3. Capacity Building

a. Leadership support & visibility and current status

The project is being led by a high powered project team under the leadership of Director General, senior directors, Joint Secretary and Project Leader under the project named as '**CSIR Enterprise Transformation –ICT interventions'.**

b. Change management strategy defined and status thereof

A series of workshops have been held at various CSIR labs across India in order to sensitize all the employees towards this change to which employees showed an overwhelmingly positive response. Moreover, an Enterprise Application launch was held between April30- May 1 2010, in one NIO, Goa, where about 5 officers from each of the 37 laboratories participated and gained a hands on experience of the various transactions/ processes of the Enterprise Applications. The Summit heralded a wave of change across all CSIR Laboratories whereby the employees who had participated in the Summit became the Change Agents for spreading awareness about automation.

c. Capacity building plan and its implementation status

The present scenario demands an individual to become efficient by being more technology savvy. This will not only help the organization to grow but will also add to the individual's capabilities. Keeping this in mind a series of trainings are being planned in order to train all the CSIR Employees about 17000) in batches for learning this new automated system and quickly accept this change, which is the need of the hour. Also, a new set of young and dynamic administrative officers are being inducted for various labs across the country whose induction training will also encompass getting well versed with this new developed system.

d. Are the Program Management Teams there full time (department officials/ consultants)

The Project is a jointly managed by CSIR Project team which consists of CSIR employees working full time and six consultant teams working under a consultancy arrangement.

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