

立法會
Legislative Council

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**Meeting of the Panel on Planning, Lands and Works
on 22 February 2005**

Public Works Programme Information System

Background brief

Introduction

On 7 March 2003, the Finance Committee (FC) approved a commitment of \$28,767,000 for developing and implementing the Public Works Programme Information System (PWPIS) to replace the Public Works Management System (PWMS) rolled out in 1994 for more effective Public Works Programme (PWP) projects.

2. The PWMS was designed to satisfy the programme management and project management needs of Environment, Transport and Works Bureau (ETWB) and works departments (WDs) respectively. Since the operation of PWMS, many changes to the operating environment and user requirements occurred over the years. In addition, many WDs put in place different practices and business rules in their daily operations and implemented various Departmental Information Systems (DIS) to cater for their own project management needs. Following a consultancy study completed in July 2002, the Administration considered it necessary to develop the PWPIS to allow greater flexibility for change to meet the business needs of individual departments in a timely manner, as well as improvement to the reporting and interface with other computer systems in WDs. The target date for full implementation was November 2004.

Public Works Programme Information System

Anticipated benefits of PWPIS

3. According to the financial proposal, the implementation of PWPIS should be able to bring about the following benefits:

- (a) Improved flexibility in accommodating changes in WDs' requirements;
- (b) Improved flexibility in accommodating business changes in programme management;
- (c) Enhanced user-friendliness of system interface;
- (d) Enhanced data ownership and accountability;
- (e) Improved accessibility of the new system;
- (f) Improved timeliness of project information; and
- (g) Reduced redundant manual data entry.

A summary of the major functions of the PWPIS is in **Appendix I**.

4. The PWPIS would comply with the Interoperability Framework (IF) promulgated by the Information Technology Services Department. It is a collection of technical and data specifications that defines the interface between interacting applications. The implementation of the PWPIS would enable all Government departments with IF compliant information systems to gain access to the data content of the PWPIS on a need basis. The enhanced accessibility of the PWPIS among Government departments is supported by Members.

Cost and benefit analysis

5. According to the Administration's estimate, the annual savings after implementation of the PWPIS would amount to \$6,693,000 in 2004-05 and \$16,062,000 starting from 2005-06. The annual saving of \$16,062,000 would include a notional saving of \$5,822,000 and a realisable saving of \$10,240,000 as detailed in **Appendix II**. In other words, the new system would break even in 2007-08 after full implementation in November 2004. Thereafter, the annual savings would even exceed the then annual cost of \$5,947,000 by \$10,115,000.

Outsourcing of implementation of the project

6. At the FC meeting, Members noted with concern the intention of the Administration to outsource the implementation of the project. This included engaging external service providers in providing both technical and project management support to ETWB and WDs throughout the tendering period and system development and implementation stages. Members accepted the need to engage external service providers in some areas such as site preparation, relocation of existing equipment and related services. They however queried why in-house staff of the relevant bureau and WDs could not take up project

management and technical support, system implementation and data conversion, as well as training. At members' request, the Administration explored the feasibility of deploying existing in-house staff to provide technical and project management support. The Administration managed to re-deploy two engineers for 28 man-months for the engineering tasks and the remaining job for tender preparation and evaluation work would be absorbed by existing staff. This would save the estimated cost of engaging external service providers of \$2,275,000. FC approved the funding proposal.

7. A list of the relevant papers with their hyperlinks at the LegCo Website is in **Appendix III**.

Council Business Division 1
Legislative Council Secretariat
21 February 2005

A summary of the major functions of the Public Works Programme Information System

1. Data Capture and Input

- Facilitate collection of the necessary data from WDs.
- Provide a variety of means to facilitate data capture and input, including electronic transmission of the data extracted from WDs' DISs, uploading from other related systems and data entry facilities.
- Capture different types of project data including Pre-Category C, Category A, B, C and D projects, and Gantt charts.
- Allow ETWB to maintain additional information related to projects and the Land Acquisition Prioritisation Exercise.
- Upload actual expenditures incurred on projects from the Ledger Accounting and Financial Information System of the Treasury.
- Upload financial information and Printed Estimates on works projects.
- Provide mechanism to load the captured data into a centralized Analysis Database.
- Validate, cleanse and transform the captured data to ensure data integrity and consistency.

2. Data Query and Reporting

- Provide pre-defined on-line enquiry facilities to retrieve general project and contract information to support users in project monitoring.
- Allow users to drill-down or drill-up on certain data or drill-through to the raw data. The user should be able to define the queries interactively.
- Allow signaling or alarming on the deviation from the project plan. Attributes for monitoring of projects include project cost, expenditure and significant events (such as project start date, completion date and tendering date).

- Allow highlighting current project attributes that have been updated since last data transfer.
- Generate exception reports.
- Enable generation of non-predefined reports – allow users to specify the report criteria, contents and layout.
- Enable secure on-line report viewing, printing and downloading of data

3. Programme Management

- Allow users to monitor the PWP from different perspectives such as under individual heads of expenditure, policy areas, controlling officers, project categories or by different levels of the organisation structure. The users may aggregate project information to programme level, or (vice versa) to expand programme information to detailed project level.
- Allow users to group different projects into programme profiles for their own monitoring and reporting purpose.
- Provide users with a tool to generate charts as well as to customise the screen display, business logic, navigation flows and data export.

**Cost and Benefit Analysis of the Implementation of the PWPIS
for the Environment, Transport and Works Bureau
(at October 2002 price level)**

	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Cost							
Non-recurrent Expenditure	4,846	23,921	0	0	0	0	0
Recurrent Expenditure	0	1,363	5,947	5,947	5,947	5,947	5,947
Total Cost	4,846	25,284	5,947	5,947	5,947	5,947	5,947
Savings							
Realisable Savings	0	4,267	10,240	10,240	10,240	10,240	10,240
Notional Savings	0	2,426	5,822	5,822	5,822	5,822	5,822
Total Savings	0	6,693	16,062	16,062	16,062	16,062	16,062
Net Savings	(4,846)	(18,591)	10,115	10,115	10,115	10,115	10,115
Net Cumulative Savings	(4,846)	(23,437)	(13,322)	(3,207)	6,908	17,023	27,138

List of relevant papers

Council/Committee	Date of meeting	Paper
Planning, Lands and Works Panel	--	LC Paper No. CB(1)829/02-03(01) http://www.legco.gov.hk/yr02-03/english/panels/plw/papers/plwcb1-829-1e.pdf
Finance Committee	7 March 2003	FCR(2002-03)65 http://www.legco.gov.hk/yr02-03/english/fc/fc/papers/f02-65e.pdf LC Paper No. FC117/02-03 http://www.legco.gov.hk/yr02-03/english/fc/fc/minutes/fc030307.pdf FCRI(2003-04)6 (supplementary information) http://www.legco.gov.hk/yr02-03/english/fc/fc/papers/fi03-06e.pdf