

For Discussion  
On 24 May 2001

**LEGISLATIVE COUNCIL**

**PANEL ON PLANNING, LANDS AND WORKS  
AND  
PANEL ON PUBLIC SERVICE**

**Corporatisation of the Survey and Mapping Office (SMO)  
of the Lands Department**

**Purpose**

This paper : -

- (a) addresses the concerns raised by Members, staff associations, and the industry on the corporatisation of the SMO ;
- (b) provides the Administration's response to the issues raised by the six SMO staff associations in their submissions to the Legislative Council dated 2 May and 7 May 2001, and the Hong Kong Institute of Surveyors dated 11 May 2001 ; and
- (c) provides information on the draft Survey and Mapping Corporation (SMC) bill.

**Background**

2. On 19 February 2001, the Administration briefed the Panel on Public Service of details of the proposal for corporatising the SMO. The Panel asked the Administration to consider alternatives to corporatising the SMO including the option of maintaining the status quo and setting up a corporation just to take on those new business activities while the SMO remained as a Government department. The Administration had carefully considered all the points raised and gave its response on 5 March 2001

( Annex to LC Paper No. CB(1)693/00-01(06)).

3. On 5 March 2001, the Administration briefed the Panel on Planning, Lands and Works on the likely scope of the draft legislation for setting up the SMC. Members raised a number of issues for consideration by the Administration. They sought clarification on the reasons for not pursuing the other alternatives, and questioned the business case and financial projections, potential conflict of interest and unfair competition with private land surveyors. The SMO staff associations also put forth their views to Members against the corporatisation proposal.

4. Having carefully considered all the points raised by Members and staff associations, the Administration gave its response on 26 March 2001 via LC Paper No. CB(1)898/00-01.

5. Over the past two months, we have met with the staff associations and conducted briefings for SMO staff at their workplace to explain the corporatisation proposal. We understand that the staff associations still have misgivings about the proposal. We will continue our dialogue with them to exchange views, seek common ground and reconcile any differences in opinions so that we can work together with them to take forward the proposal.

6. The following SMO staff associations and professional institute have made submissions to the Legislative Council recently expressing their views on the corporatisation proposal :-

- (a) joint submission from the Association of Government Land and Engineering Surveying Officers, Association of Government Technical and Survey Officers, Association of Government Cartographic Staff, Government Chainmen Union and the Lands Department Drivers Union dated 2 May 2001;
- (b) submission from the Association of Government Local Land Surveyors (AGLLS) dated 7 May 2001; and
- (c) submission from the Hong Kong Institute of Surveyors (HKIS) dated 11 May 2001.

## **Concerns of major stakeholders**

7. The main concerns of Members and the staff associations are the uncertain business future of the SMC, whether Government is committed to procuring survey and mapping services from the SMC in future, job security of civil servants seconded to SMC and those joining the corporation on its terms of employment, and their career prospects with the SMC.

8. Some private land surveyors worry that the SMC will have competitive advantages and will monopolise the provision of land surveying services. Others are concerned about possible conflict of interest for the SMC to assist the Land Survey Authority (LSA) in administering the Land Survey Ordinance.

9. The Administration had explained to Members at previous meetings the need to corporatise the SMO and how the interests of the stakeholders would be taken care of. We appreciate the concerns of the staff associations and would like to re-assure Members that the Administration will ensure that the necessary measures to address the concerns of SMO staff concerns are put in place. Details of these measures are set out in paragraphs 12 to 38 below.

### ***Business viability of SMC***

10. We have always been extremely mindful of the business prospects of the SMC as we understand that they would have significant impact on the job security of staff, particularly those who intend to take voluntary retirement to join the SMC on its terms of employment.

11. Members and SMO staff associations have questioned the business viability of the SMC on the ground that the SMC may not be able to get sufficient commercial revenue to finance its operation. They are of the view that much of the existing work of SMO is not a profitable business portfolio and that the market demands for SMC services and products are volatile.

12. It is true that some of the services currently provided by the SMO are not market-oriented. These are the core surveying and mapping services for the community, i.e. maintenance of a geodetic network, land boundary records and basic mapping for the whole territory, and services provided to various Government departments for land administration, town planning, infrastructural and engineering development, management and regulatory purposes. On the other hand, our digital map products have enormous scope for commercial applications with the advent of new technology. Indeed, there are rapidly emerging demands for GIS and GPS applications all of which require the support of our digital map base and customised mapping data.

13. The Administration considers that the land surveying and mapping services currently provided by SMO are essential public services that it is committed to provide. On this premise, the Administration has agreed to procure all existing SMO services from the future SMC through a Service Level Agreement (SLA). This will be a long-term agreement embracing all existing SMO services. In the SMC Bill ( please refer to paragraph 44 below ), there will be provisions setting out clearly the roles and responsibilities of SMC in the provision of services to the Government and the community.

14. The SLA is costed on the basis of the current full operating costs of the SMO. In other words, the existing level of services will be maintained and there will be no pressure to reduce staff level. The SMC's projected revenue from the SLA included in the SMC's business plan presented to Members on 19 February 2001 was worked out on the above costing basis which has been agreed by the Administration. For ease of reference, the SMC's Forecast Profit and Loss Account is reproduced at **Annex A**.

15. Members are invited to note that the SMC's revenue from the SLA will basically be maintained at existing levels except for efficiency savings expected in line with Government's Enhanced Productivity Programme.

16. SMO staff associations have expressed concern that Government might reduce the level of services to be procured from the SMC and turn to less costly services provided by other commercial concerns, and this will affect the business viability of the SMC. This assumption is wrong. It is obvious that there will be a continued need, and perhaps even growing demand, for all those services included in the SLA to support the work of the Government. Indeed, there are rising demands for GIS and GPS applications within the Government to enhance the operational effectiveness and efficiency of respective departments. For example, the Fire Services Department, Civil Engineering Department, Highways Department, Planning Department, Census and Statistics Department, Transport Department, are either developing or actually already using these applications.

17. Concern has also been expressed over the possible adverse impact on SMC's financial viability if new projects included in the projected revenue do not materialise within the envisaged time-frame. It has to be pointed out that the effect of this on SMC's total revenue would be minimal. Government infrastructure projects normally take a few years to complete. It is therefore the usual practice for Government to engage short-term staff for these projects. If there are fewer new projects, there would also be a corresponding reduction in SMC's operating expenditure as SMC would not need to engage the required additional short-term staff to support these projects. Therefore, even if these projects do not materialise, it would not pose any financial risks that would jeopardise the business viability of the SMC.

18. As regards commercial revenue, SMO staff associations have cast doubts on whether the SMC would be able to earn the commercial revenue as projected in view of market uncertainties. We would like to clarify that forecast revenue from new business will mainly be derived from GIS or GPS applications and services. The projected income from these is based on independent market research, and a very conservative estimate of the potential market share that SMC might be able to take up. The main role of SMC will be the provider of the digital map base and to assist its clients in the development of the customised map-related data. In this respect, SMC will not need to invest in the technical infrastructure of these applications.

19. SMO staff associations have questioned the non-profitability of GIS Web sites. The SMC Business Plan does not require SMC to operate Web sites. Rather, SMC would provide the digital map base and customised data. As to the concern that GPS will have limited applications in Hong Kong in view of its densely built environment, we are aware that supplementary technologies are emerging and together they would be able to provide reliable location information for various GPS applications.

20. In light of the above, we are confident that the business plan for the SMC will come to fruition. SMC may even be able to derive more commercial revenue than projected as our forecast is really based on a very conservative projection and there are abundant commercial opportunities which the SMC can exploit. As shown in Annex A, revenue from these commercial opportunities would bring about financial benefits to Government and the SMC ( some extra revenue of \$93 M in Year 5 ). Even if we could not realise all the commercial revenue as projected, SMC would only realize less profits rather than sustaining any operating deficits.

21. To conclude, the SLA will provide guaranteed revenue to the SMC to support its baseline operations. This is the best safeguard to ensure the business viability of the SMC. Other revenue from the commercial sector for GIS and GPS applications will provide extra income and profits to the SMC part of which will be distributed to staff as incentive rewards.

***Need for corporatising SMO if the SMC's revenue would mainly come from Government***

22. Members and SMO staff associations have challenged the need for corporatising the SMO given that most of SMC's revenue will come from Government through the SLA. As a Government office, the SMO cannot operate on a commercial basis as it does not have a separate legal entity in dealing with the private sector on business projects. It has to follow the laid down Government procedures e.g. policy approval for new activities, tender procedures, etc. However, as a corporation the SMC can respond flexibly and quickly to the changing market demands for its products and services. This will in turn further enhance efficiency, provide better services and maximise SMC's market potential.

23. The scope for developing new applications incorporating mapping data grows as technology develops. These are mainly location-based applications for fleet management and deployment, route and logistics planning, facilities and assets management, transport management, in-car navigation, etc. As a Government office, the SMO will be restrained by Government procedures from exploiting the opportunities that exist outside of government.

24. With its separate legal entity, SMC will have the full autonomy and flexibility to determine its own priorities, to secure the needed resources to develop value-added products, either by itself or through partnership, to meet the demands of various sectors and to maximise the benefits of its geospatial data. This would help the business sector to develop business applications requiring the support of digital map bases.

25. There are already many foregone opportunities. SMO has received numerous requests for customised mapping data from commercial organisations. However, we could not meet their requirements within their required timeframe because we could not secure the needed additional resources to do the work. This has not only resulted in losses of the opportunities to generate revenue but also demonstrated that the SMO in its current state cannot meet the needs of the business sector.

26. Apart from providing better services to the business sector and the community, exploiting the various commercial opportunities will bring about financial benefits both to the SMC and the Government. In the longer term, Government will benefit from the financial gains of SMC through profits tax and dividend payments to Government as the sole shareholder of the corporation. Taking the projected position for Year 5, SMC will have a profit before tax of \$93 M which is equivalent to 13 % of the current annual full operating cost of SMO. As mentioned previously, staff will also be able to share some of the profits through incentive rewards.

27. Indeed, some academia also support the corporatisation proposal because they believe more resources and efforts could be devoted to the development of new technologies in land surveying and mapping, and the SMC would facilitate the development and setting up of a spatial data infrastructure.

### ***Job security and career prospects***

28. We would like to re-affirm the Administration's commitment that there will not be any forced redundancy of SMO staff. They will be given two years to consider whether they would like to take voluntary retirement, and join the SMC on its terms of employment. For those taking voluntary retirement, they will be granted a compensation package, and they can continue to draw their monthly pension whilst employed by the SMC. They will be offered comparable jobs in the corporation at a pay level equivalent to the dollar value of their existing civil service pay point at the time of conversion.

29. Those staff opting to retain their civil servant status would enjoy the same job security as all other civil servants. They will remain on the civil service establishment until they leave the service in the usual manner. Some have expressed worry about possible forced redundancy of civil servants in the event that the SMC runs into financial difficulties. We would like to reiterate that this is almost impossible for the reasons set out above. In the unlikely event that the operation of SMC fell short of our expectation, Government would still be required to provide the essential survey and mapping services, and would need the relevant professional and technical staff to do the work.

30. On career prospects, we will preserve the promotion opportunities for those staff who choose to remain as civil servants. Eligible staff will be considered on an equal footing for promotion, which will be decided on merits.



***Other options : SMO to remain intact and set up a business unit for promotion of digital products or turning SMO into a Trading Fund department***

31. We have considered the proposal to keep SMO intact while setting up a new agency to take on the new business activities intended for SMC. However, we believe that this approach would neither be practicable nor enable the full benefits of corporatisation to be reaped for the following reasons :-

- (a) land surveying and mapping are integral services closely related to each other. New business on GIS and GPS –based applications have to rely on the dedicated support of the land surveying and mapping teams to work out appropriate solutions. Also, most of these new applications will be built on the platform of a land information system which supports all the functions and services of the SMO and its services provided to the community and various Government departments. The system has been developed and maintained by the dedicated teams within the SMO. There will be practical problems to ask two separate agencies to provide integrated services requiring close work interface among them;
  
- (b) the work of the proposed Spatial Service Centre of the SMC requires the dedicated support of the Spatial Data Centre ( the existing Land Information Centre ) which in turn needs the support of the Mapping Unit, Reprographic Unit, all District Survey Offices (DSO) and the Photogrammetric and Air Survey Section. Where special customised data are required, the DSOs and other units concerned will have to gather the necessary field information and process it to meet the requirements of the clients. Under different set-ups, SMC will not be able to mobilise the staff and resources of SMO in accordance with SMC’s priorities to meet the demands of the customers ; and

- (c) SMO professional and technical staff are engaged in a variety of land surveying and mapping work each of which requires special training and expertise. The same skills will be required to support the expanded commercial activities of the future SMC. It is necessary to equip staff with all-round work knowledge and experience and to provide a variety of exposure which helps maintain motivation and morale. This also enhances the standard of work and productivity. Having a separate organisation to deal with digital map products will reduce job rotation opportunities and inhibit staff from acquiring the full-range of professional/technical experience.

32. As regards the Trading Fund option, this would give the SMO some flexibility in accounting arrangements and in dealing with other Government departments, and to make efficiency improvements. However, under the trading fund arrangement, the organisation will remain a Government department and will not have the flexibility needed to exploit commercial opportunities.

### ***Copyright protection***

33. We fully understand the importance of the protection of the copyright of the Government and SMC data. This is one of the key tasks on which the SMC needs to focus. We will put in place effective measures over the use of these data to protect SMC's interest. The Copyright Ordinance and the Intellectual Property (Miscellaneous Amendments) Ordinance 2000 operative on 1 April 2001 provide effective tools to combat corporate copyright piracy. There are a wide range of civil and criminal legal remedies available to protect SMC's interests.

### ***Legal framework for the spatial data infrastructure***

34. Another concern raised is about the lack of a legal framework for the spatial data infrastructure as mentioned in paragraph 27 above. One of the SMC's functions is to participate in the development, establishment and maintenance of a territory wide spatial data infrastructure for shared use by Government and the public. The Administration will look into the various issues including the need for a legal framework and how this should be pursued.

### ***Possible conflict of interest in supporting the Land Survey Authority***

35. The HKIS and some private land surveyors have expressed concern about the possible conflict of interest if SMC is to assist the LSA (who is the Director of Lands) to administer the Land Survey Ordinance. The role of the SMC is mainly to provide necessary professional and technical support to the LSA. The main work of the SMC in this respect would be to assist the LSA in maintaining land boundary records and inspecting whether the submissions from authorised land surveyors conform to the requirements of the codes of practice. In view of this and the fact that the Authority is not empowered to determine land boundaries, there will not be any conflicts of interest. The LSA will continue to carry out its statutory functions in a fair and impartial manner.

### ***Possible monopoly of land surveying services***

36. Our survey and mapping data are available to authorised land surveyors and the public. We do not envisage that there would be any change to these arrangements upon the setting up of the SMC. As a responsible public corporation, the SMC will not withhold any information which as a matter of policy should be made available to authorised land surveyors and the public. We will ensure that all service providers in land surveying and mapping will operate on a level playing field.

37. The Business Plan indicates that the new business of the SMC would focus on digital map applications. It is not envisaged that the SMC would compete with private land surveyors for land boundary survey work.

## *Contingency*

38. We disagree with the views of SMO staff associations that the Administration has over-emphasised the benefits of corporatisation without a full appraisal of all relevant factors including possible risks and how they could be managed. We have conducted sensitivity tests and risk analyses to assess the impact to SMC's viability in the event that the number of staff switching to corporation terms is less than we have assumed and that the SMC gets less commercial revenue than projected. The results are that the SMC will still be financially viable.

39. We have studied the cases of the Ordnance Survey (OS) in United Kingdom and the Terralink in New Zealand. According to the published Annual Report and Accounts 1999-2000 of OS, it has recorded a profit of £ 12.7 M in its first year of operation as a Trading Fund Agency. The UK Government has a National Interest Mapping Services Agreement with OS to carry out specific surveying and mapping services. This gave OS the financial support needed for its operation.

40. AGLLS's assertion that OS has laid off one-fifth of its staff quoting the report of the "Surveying World, Issue 2, Jan 2001" is not correct. According to the report, "... The move followed a two-day assessment course at which more than 40 senior managers attended to test them against a range of competencies judged by OS to be necessary in this competitive world. It is understood that a fifth failed to come up to the standards set by the mapping agency. .... They were given options of early retirement or being 'performance managed' for three months with the threat of dismissal for poor performance at any time during that period."

41. As regards Terralink, it went into receivership because of the failure of a contract for the supply of digital maps. Terralink is quite distinct from SMC's case as it did not have a service level agreement with Government for the provision of mapping services. Also, Terralink's map production was confined mainly to small scale maps while production and updating of large scale maps remained the work of the respective local governments. As Terralink had very different business scopes and financial arrangements than those proposed for the SMC, it is not a meaningful comparison.

## **Conclusion**

42. We note the concerns of the staff associations to the corporatisation proposal, and their job security and career prospects in the SMC. We have worked out a plan that will ensure adequate funding for the SMC to cover its baseline operation through the SLA. This will safeguard the business viability of the SMC, and hence the job security of staff. We have given staff a choice of either taking up jobs offered by the SMC or retaining their civil servant status.

43. We strongly believe the SMC will offer a dynamic and attractive work environment for staff, a stable career and good advancement opportunities for all staff be they employed on SMC or civil service terms.

## **Draft SMC Bill**

44. On 5 March 2001, we briefed the Panel on Planning, Lands and Works on the likely scope of the bill for the setting up of the SMC. Drafting work for the bill is still in progress. Some more details about the provisions of the draft bill are at **Annex B** for Members' information.

## **Way forward**

45. We believe that an objective appraisal of our proposal will conclude that the corporatisation proposal will benefit the survey and mapping industry, the government and the business community, as well as the staff generally. We remain open to views from all interested parties and look forward to further discussions with Legislative Councillors and staff.

**Planning and Lands Bureau**  
**Efficiency Unit**  
**Lands Department**

**May 2001**

**Annex A**

**SMC's Forecast Profit & Loss Account (Year 1 to Year 5)**

(Constant HK\$ million)

|  | <u>Year 1</u>  | <u>Year 2</u>  | <u>Year 3</u>  | <u>Year 4</u>  | <u>Year 5</u>  | <b>Total</b>     |
|--|----------------|----------------|----------------|----------------|----------------|------------------|
| Revenue                                      |                |                |                |                |                |                  |
| Service Level Agreement                      | 804.9          | 765.4          | 745.4          | 726.5          | 719.0          | 3,761.2          |
| Commercial and other revenue ( <i>Note</i> ) |                |                |                |                |                |                  |
| (a) New Projects                             | 38.1           | 89.0           | 87.1           | 81.2           | 87.3           | 382.7            |
| (b) Commercial and other                     | 27.6           | 55.7           | 82.6           | 103.7          | 124.0          | 393.6            |
| Total  | <u>870.6</u>   | <u>910.1</u>   | <u>915.1</u>   | <u>911.4</u>   | <u>930.3</u>   | <u>4,537.5</u>   |
| Expenditure                                  | <u>(848.0)</u> | <u>(844.8)</u> | <u>(839.1)</u> | <u>(829.0)</u> | <u>(836.9)</u> | <u>(4,197.8)</u> |
| Profit before taxation                       | 22.6           | 65.3           | 76.0           | 82.4           | 93.4           | 339.7            |
| Profit tax                                   | <u>(3.6)</u>   | <u>(10.4)</u>  | <u>(12.2)</u>  | <u>(13.2)</u>  | <u>(15.0)</u>  | <u>(54.4)</u>    |
| Profit after taxation                        | 19.0           | 54.9           | 63.8           | 69.2           | 78.4           | 285.3            |
| Proposed dividends                           | <u>(9.5)</u>   | <u>(27.5)</u>  | <u>(31.9)</u>  | <u>(34.6)</u>  | <u>(39.2)</u>  | <u>(142.7)</u>   |
| Retained profit for the year                 | <u>9.5</u>     | <u>27.4</u>    | <u>31.9</u>    | <u>34.6</u>    | <u>39.2</u>    | <u>142.6</u>     |
| Net profit margin                            | 2.2%           | 6.0%           | 7.0%           | 7.6%           | 8.4%           |                  |

| <i>Note</i>                           | (Constant HK\$ million) |               |               |               |               |
|---------------------------------------|-------------------------|---------------|---------------|---------------|---------------|
|                                       | <u>Year 1</u>           | <u>Year 2</u> | <u>Year 3</u> | <u>Year 4</u> | <u>Year 5</u> |
| Commercial and Other Revenue          |                         |               |               |               |               |
| New Projects                          | 38.1                    | 89.0          | 87.1          | 81.2          | 87.3          |
| Maps and Photographs                  | 9.2                     | 10.0          | 10.8          | 11.6          | 12.0          |
| Digital Data                          | 7.5                     | 9.5           | 12.0          | 14.6          | 16.5          |
| GIS Consultancy and Advisory Services | 7.0                     | 23.0          | 34.0          | 35.0          | 36.0          |
| VAR/partnership Agreement             | 2.8                     | 10.4          | 19.5          | 32.5          | 45.5          |
| Others                                | 1.1                     | 2.8           | 6.3           | 10.0          | 14.0          |
|                                       | <u>65.7</u>             | <u>144.7</u>  | <u>169.7</u>  | <u>184.9</u>  | <u>211.3</u>  |

**Scope of the  
Draft Survey and Mapping Corporation Bill**

Further to the Administration's paper presented to the LegCo Panel on Planning, Lands and Works (at its meeting on 5.3.2001) on the scope of the draft Survey and Mapping Corporation Bill, some more details about the main provisions of the draft bill are as follows:

**Objects of the Survey and Mapping Corporation Bill**

- The object of the Bill is to establish a statutory corporation called the Survey and Mapping Corporation which will undertake the functions carried out by the Survey and Mapping Office of the Lands Department.
- The Survey and Mapping Corporation ("SMC") will be established as a body corporate. It may sue and be sued in its name.
- The SMC will not be a servant or agent of the Government. As a result, SMC will not have the immunities and privileges of the Government and will not be regarded as the servant or agent of the Government for any other purpose.
- The SMC may, through the Chief Executive Officer or a person authorized by it for the purpose, enter into any contract or instrument as it were an individual.
- The objects of SMC are to meet the land surveying and mapping services needs of Hong Kong, to be an authoritative body in relation to geodetic survey and basic mapping, to promote research and development activities in the field of land surveying and mapping and to maintain the standards of the land survey and mapping industry in Hong Kong.

**Functions of the SMC**

- There will be provisions setting out the functions SMC is to perform under an agreement entered into with the Government and the other services and activities it is authorized to undertake or engage in.

### **Establishment of Board of Directors and its functions**

- A board of directors (“the Board”) of SMC will be established. The directors of SMC are to be appointed by the Financial Secretary.
- The Board, as the governing body of SMC, is to perform the functions of SMC and that anything done by the Board in the name of SMC is taken to have been done by SMC.
- The Board can delegate the powers, duties and functions of SMC subject to conditions/restrictions.
- The Board can establish committees to assist it in performing its functions.

### **Staff of SMC**

- The Chief Executive Officer (“CEO”) of SMC is to be appointed by SMC with the approval of the Financial Secretary. The CEO will have the function of administering the affairs of SMC.
- SMC can employ persons on contract or enter into any agreement with the Government for secondment to SMC of public officers.

### **Financial provisions concerning SMC**

- SMC’s authorized capital is to be specified by the Financial Secretary. The authorized capital can be increased by the Financial Secretary.
- The SMC will have power, with the consent of the Financial Secretary, to establish reserve funds, transfer money to their credit and use the money. It may invest surplus moneys in investments approved by the Financial Secretary.
- SMC is to keep proper accounts of its financial transactions and to prepare statements of accounts. SMC is required to have the statement of accounts audited and to submit the audited statement of account to the Financial Secretary. The reports and statements will be tabled in the Legislative Council.



**Operations of SMC**

- SMC is to act according to prudent commercial principles in performing its functions.
- The Chief Executive will have the power to require SMC to supply information on its property and affairs of SMC.
- SMC can form partnerships, joint ventures or subsidiaries. It can enter into financial arrangements to protect itself against financial risks.
- The Legislative Council may be resolution authorize the Financial Secretary to enter into guarantees relating to the financial affairs of SMC.
- The Chief Executive may give directions to SMC regarding the performance of its functions where public interest requires it.

**Miscellaneous provisions**

- The SMC will become a public body to which the Prevention of Bribery Ordinance (Cap. 201) applies.
- The SMC will become an organization to which the Ombudsman Ordinance (Cap. 397) applies.

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