

**EILAT 2009**

FIG Working Week

Surveyors Key Role in Accelerated Development



3-8 May 2009

# New Ideas regarding the Directors General Forum

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## FIG current forums of activities:

- **The General Assembly**
- **The President and the Council**
- **ACCO and the Commissions**
- **FIG Conferences based on technical programs**

**National Geospatial Agencies are very powerful worldwide.**

**They lead regulation of the profession and the production processes, including the implementation of new ideas which are developed in the Academia.**

**NGA's, as organizations, are involved in FIG as side players, except for their participation in organizing FIG conferences.**

## The goal:

**To promote the interaction between FIG and the national agencies, and between the national agencies through the interaction with FIG.**

## The expected results:

**Adding relevance and encouraging FIG.**

**Benefits and savings to NGA's.**



## Specific ideas:

- **Creation of a Directors General Forum at the FIG website for mutual updates. A volunteer should manage this activity.**
- **The DG Forum may maintain a dedicated data base of relevant issues.**
- **A coordinator should be nominated for the interaction between the DG Forum and FIG President, the Council and ACCO.**



## Two-Direction Dialog

**The interaction may work in two directions, including the possibility that DGs may raise issues, which they face, to be put on the agenda of FIG and discussed at the relevant Commissions. Thus, may be to challenge the Academia and the private market.**

Another format for interaction is a round table for discussions on relevant issues like:

- The behavior of governments under circumstances of global crisis - continue privatizing or vice-versa?
- Investing in R&D? What are the most critical professional issues recommended for investment?
- Cooperation between NGA's and the Academia.
- Cooperation between NGA's and the private sector.

Questionnaire prepared for an initial NGA DB regarding various fields of responsibilities and activities:

**Brief International Survey on the Status of the Profession and Activities of National Surveying and Mapping Organizations**

**March, 2009**

The following document presents a list of key topics that are of constant interest to the surveying community and especially for General Directors, Chief Executive Officers, directors, managers and other seniors of national organizations engaged with surveying, cadastre, geodesy, mapping and GIS.

We appreciate very much if you could fill the questionnaire or task someone of your organization to fill it. Feel free to fill it fully or partially.  
When we finish the international survey we will send you the results.

**Questionnaire**

General

Country Israel

Email (if you wish to get the results of the survey) haim@mapl.gov.il

Name of the organization / national agency? Survey of Israel

Number of employees in the agency 300

Estimated number of licensed/certified surveyors in your country 1000

Estimated number of teaching institutions (universities and colleges) for surveyors:

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Estimated annual number of graduates from these teaching institutions: 30

**Surveying profession:**

Professional license

1. Is a license required to work as a surveyor?  
 a. Yes  
 b. No  
 c. Other, please specify \_\_\_\_\_
2. If the answer to 1 is Yes, who is responsible for licensing?  
 a. Licensing is performed by my agency

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- b. Licensing is performed by another governmental organization
- c. Licensing is performed by a professional society
- d. Other, please specify \_\_\_\_\_

3. What type of education is required by the state to be able to work as a surveyor?

- a. Not required
- b. 2 year degree
- c. 3 year degree
- d. 4 year degree
- e. More than 4 years, please specify \_\_\_\_\_

4. What supervised experience (including training) is required by the state for licensing?

- a. Not required
- b. 1 year experience
- c. 2 year experience
- d. 3 year experience
- e. 4 year experience
- f. Other, please specify \_\_\_\_\_

Please specify any special requirements for the training  
An experienced surveyor approved by the agency supervises the candidate surveyor who should perform two cadastral subdivision projects.

5. How many exams are required for the licensing process?

- a. None
- b. One exam
- c. Two exams
- d. Other, please specify \_\_\_\_\_

6. Is Continuing Professional Development (CPD) a requirement for renewal of license?

- a. Not required
- b. Yes, but it is not enforced
- c. Yes, please specify number of required hours and type of credits \_\_\_\_\_
- d. Other, please specify \_\_\_\_\_

Surveying Regulation

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7. Surveying, cadastre and mapping procedures are regulated using:
- a. Regulations (as a part of the legal system)
  - b. Specifications
  - c. Standards
  - d. Guidelines
  - e. No regulations
  - f. Other \_\_\_\_\_
8. These regulations contain information about:
- a. Surveying procedures
  - b. Cadastral procedures
  - c. Topographic mapping procedures
  - d. Geographic Information Systems
  - e. Hydrographic charting
  - f. Other, please specify \_\_\_\_\_
9. State regulations are issued by the
- a. Minister
  - b. National surveying and mapping agency
  - c. Other governmental agency \_\_\_\_\_
10. Professional standards and specifications that are used by surveyors are issued by:
- a. The state
  - b. A professional organization
  - c. An international organizations (like ISO, IHO, etc.)
  - d. Other, please specify \_\_\_\_\_
11. Is one organization responsible for Geodesy (G), Cadastre (C), Mapping (M), GIS (GI) and Hydrographic charting(H)?
- a. Yes
  - b. No
  - c. Partially, please specify the fields that are combined under your agency \_\_\_\_\_
  - d. Remarks: GIS is managed with the assistance of a National GIS committee
12. Evaluation of the reward (salary and benefits) and public image of a surveyor in comparison to a civil engineer:

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- a. Surveyor is higher
  - b. Equal
  - c. Surveyor is lower
  - d. Remarks \_\_\_\_\_
13. Evaluation of the reward (salary and benefits) and public image of a surveyor in comparison to a lawyer:
- a. Surveyor is higher
  - b. Equal
  - c. Surveyor is lower
  - d. Remarks: Lawyers have higher salaries but bad public image
- Scientific and technological aspects of surveying, cadastre, mapping, GIS and geodesy**
- Cadastral:**
1. The cadastral system in your state is based on:
- a. A deeds System: A register of owners; the transaction is recorded B not the title.
  - b. A title System: A register of properties; the title is recorded and guaranteed
  - c. Other, Please specify \_\_\_\_\_
2. What is the legal order of precedence of cadastral evidence in your state? (Please mark the relative order of the item in the list)
- a. Physical marker on the ground (1, 2, 3, 4)
  - b. Coordinates (1, 2, 3, 4)
  - c. Maps, plans and graphical evidence (1, 2, 3, 4)
  - d. Written description (1, 2, 3, 4)
3. Who is authorized to prepare cadastral maps (like subdivision plans, land settlements and mutation maps)?
- a. Only governmental employees
  - b. Private surveyors with governmental supervision
  - c. Private surveyors
  - d. Other, please explain \_\_\_\_\_
4. Is cadastral data and information stored in a national archive maintained by the government?
- a. Yes
  - b. No
  - c. Partly

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d. Other, please specify \_\_\_\_\_

5. Mark the type of cadastral data which is computerized:

- a. Maps and plans
- b. Cadastral registry books
- c. Surveying notes and field sketches
- d. Corner points and monument descriptions
- e. Ownership records

6. Is the data available on-line?

- a. Yes, open access to the public
- b. Limited to the professional community
- c. No
- d. Part of it, please specify \_\_\_\_\_

7. Is 'digital signature' technology being used in signing legal cadastral documents?

- a. Yes
- b. In development
- c. No
- d. Other, please specify \_\_\_\_\_

8. Do you use coordinates in specifying land boundaries?

- a. Yes, as a legal evidence
- b. Yes, to assist the surveyor but not as a legal evidence
- c. Not yet, in a process of migrating to a coordinate based system
- d. No
- e. Other, please specify \_\_\_\_\_

9. Is there a legal and technical support for three-dimensional cadastre

- a. Yes
- b. In development
- c. No
- d. Other, please specify \_\_\_\_\_

**Geodesy**

10. Does your state use a network of continuously operating reference stations (CORS) or active permanent stations?

- a. Yes, real time service
- b. Yes, not a real time service
- c. Partial coverage
- d. No



11. Which organization maintains this network

- a. National

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b. Private  
c. Other, please specify \_\_\_\_\_

12. Is the service free to the public?

- a. Yes
- b. Subsidized
- c. No

13. How many stations are employed in this network (or station separation) 18 Stations

14. Does the service provide orthometric elevations

- a. Yes
- b. No
- c. Other, please specify \_\_\_\_\_

15. Is there a network of benchmarks with orthometric elevations being maintained by precise leveling in your state?

- a. Yes, maintained by the national agency
- b. Yes, maintained by local authorities
- c. Yes, maintained by private organizations
- d. Yes, but it is not properly maintained
- e. No
- f. Other, explain \_\_\_\_\_

16. If yes, what is the accuracy of the state network of benchmarks with orthometric elevations. 0.5 cm

17. Does your state currently maintain a network of geodetic control points?

- a. Yes, maintained by the national agency
- b. Yes, maintained by local authorities
- c. Yes, maintained by private organizations
- d. Yes, but it is not properly maintained
- e. No
- f. Other, explain \_\_\_\_\_

18. What is the accuracy of your state geoid model if exists 0.1 m

**Topographic mapping and GIS**

19. Does your state currently maintain and publish national series of topographic maps?

- a. Yes, full coverage at scales 1:50000 1:25000
- b. Partial coverage
- c. No

20. Does your state currently maintain a national topographic database?

- a. Yes, full coverage
- b. Partial coverage

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c. No

21. What are the sources of the topographic database?

- Land survey
- Digitized maps, scale \_\_\_\_\_
- Air photographs: Scale 1:40000
- Other, Specify \_\_\_\_\_

22. What is the accuracy of your national topographic database? 2 meters

23. What is the frequency of revisions and updating of this national database? 2 Years average

24. What thematic layers exist in the national topographic database? (please mark):

- Transportation (Roads, railways, street names, etc.)
- Buildings and structures
- Points of interest
- Addresses and traffic information
- Land cover/ land use
- Cadastral data
- Vegetation
- Water bodies
- River and streams (hydrology)
- Utilities
- Contour lines
- Digital elevation model (DEM)
- Geodetic network
- International and administrative boundaries
- Other, specify \_\_\_\_\_

25. Does your state currently maintain and publish a national orthophoto?

- Yes \_\_\_\_\_
- Partial coverage
- No

26. What is (/are) the source of orthophoto:

- Aerial photographs taken by an analogue camera
- Aerial photographs taken by a large format digital camera
- Aerial photographs taken by a medium format digital camera
- Satellite imagery
- Other

27. What is the resolution of your national orthophoto? 0.5 m

28. What is the frequency of revisions and updating of the national orthophoto? 1 year

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29. What is (/are) the source of the national DEM?

- LIDAR
- Automatic DEM generation using digital photogrammetry
- DEM generated using photogrammetry by operators
- DEM generated from existing maps
- No national DEM coverage

30. What is the resolution of the national DEM? 30 m

31. Mark the cartographic products which are produced by the agency?

- Topographic maps
- Tourist maps
- Maps with political boundaries
- Cadastral maps
- Transportation maps
- Geological maps
- Atlases
- No printed cartographic products are produced by the agency
- Other please specify \_\_\_\_\_

32. How do you provide digital data to the users?

- On-line geographic portal
- Digital media
- Contract to companies
- Not for sale

33. Collaboration with global companies (Google, Microsoft, etc.) and data sharing

- Yes
- Partial, through a reseller
- No

34. Are copyright laws being applied and enforced to protect digital spatial data

- Yes
- In development
- No
- Partially, please explain: Some laws exist but they are hard to enforce

35. Do you use a method to "stamp" the data and maintain authenticity?

- Yes
- In development
- No


36. Model of existence:

- The national organization is fully funded by the government

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- b. The national organization is partially supported and partially depended on income
- c. The national organization is it fully independent, competing in the commercial market

Thank you very much for your cooperation. We will inform you on the results of the survey.

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*Thank you  
For your attention*