



The role of IHO in SDI

MSDIWG findings

John Pepper - UKHO [Chair]



IHO & SDI

“The HO is an important part of the National Geospatial Data Infrastructure [NSDI] and the IHO has an important role to play in coordinating requirements and demands for data collection, interoperability, dissemination, access, standards, security, pricing, policy and funding models for hydrographic data.”

Vice Admiral Maratos: President of the IHB, March 2007.



What is MSDI?

A framework which provides for the integrated management of spatial data and information in the marine [maritime] environment covering processes such as:

- **technology**
- **policy**
- **standards**
- **data**
- **people**
- **organisations**



WG Objectives

- To prepare, undertake and complete an audit of IHO Member States to establish their level of knowledge and understanding of the benefit of supporting National SDI initiatives and their capability in supporting the development of Marine SDI.
- To analyse the results of the audit and establish the benchmark for future IHO support and / or capacity building required to inform the development of the SDI IHO Guide.
- To provide the preliminary IHO SDI Guide for Member States incorporating necessary step by step approach to SDI.
- To provide, to CHRIS Meeting 20, a report of WG activities to date and to recommend (if necessary) an extension to the life of the WG in the light of results and / or progress achieved in the 2008 work programme.



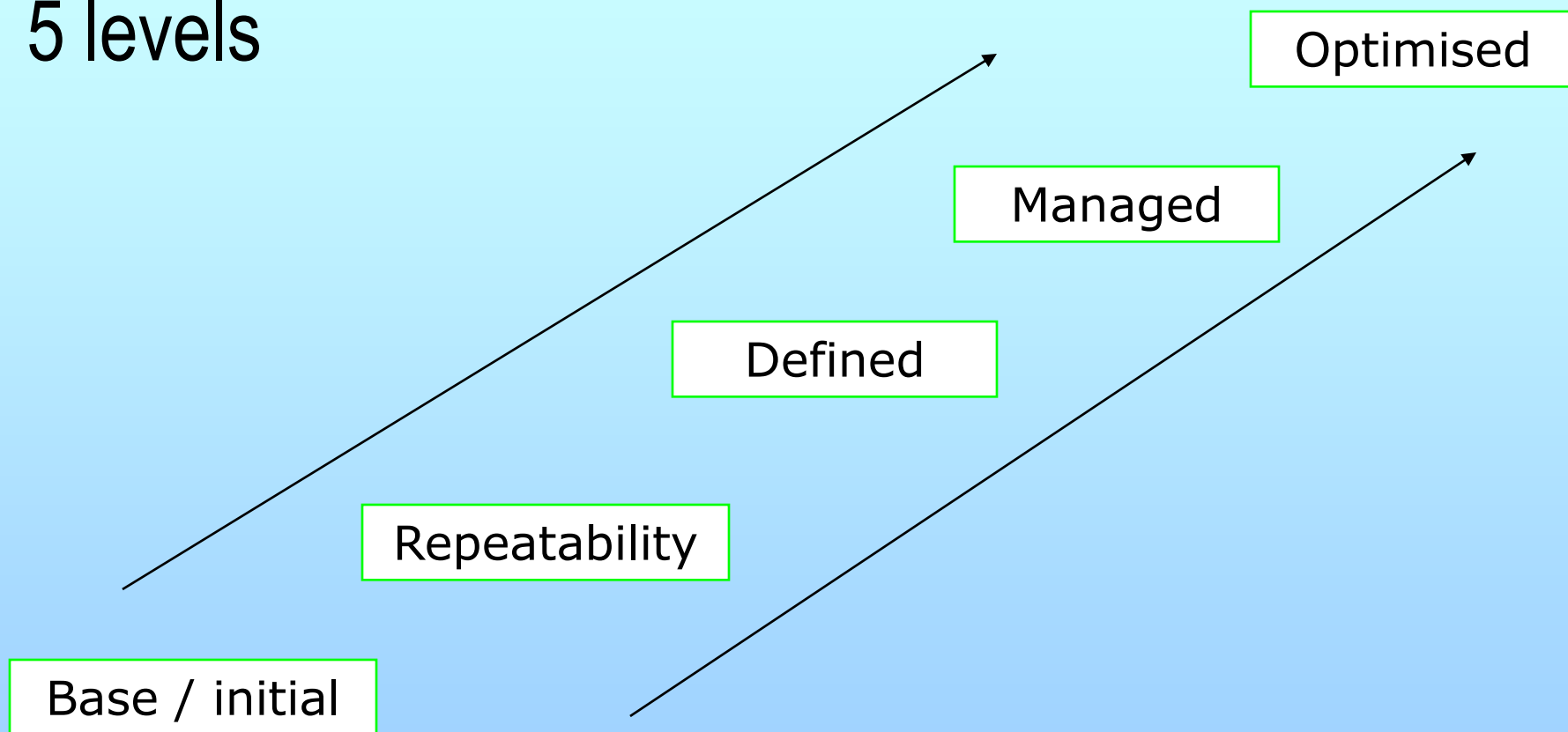
Research preparation

- Qualitative questionnaire for e-mail or fax return to IHB
- 'Maturity matrix' plus 3 supporting questions covering topics:
 - Current status (2008) of MSDI
 - Aspirations regarding status in 2011
 - Plans / activities to reach 2011 status
 - Barriers to achieving 2011 status
 - IHO role and assistance required



'Maturity matrix' - levels

5 levels





Responses and analysis

- 43 countries responded
 - good cross- section around the world, allowing groupings for analysis purposes
- Matrix - a numbers-based analysis
- Non-matrix questions
 - open ended answers were grouped, and a set of generic phrases developed against which to code the responses
- A full set of these comments and their generic codes are available



‘Maturity matrix’ - clusters

5 clusters:

- Policy intent / Strategy on NSDI / MSDI
- People and communications
- Data management
- Data frameworks and standards
- Data dissemination



Summary outcomes of responses



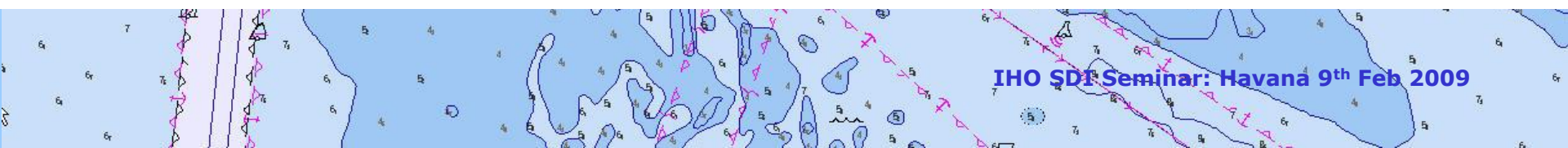
Activities/plans to develop an MSDI [1]

- Several countries stated that MSDI is / will be a part of the NSDI
- Majority have set up or are setting up committees or a designated authority to develop the policy / strategy
- Partnerships with bodies / authorities including data owners and users are being formed
- Development of the database is a key activity
- Database development planned or underway with major activities relating to digitising and integration



Activities/plans to develop an MSDI [2]

- Most countries are either already working to or looking to work within international or national standards, [e.g S57/S100, ISO 19100 / 19115 / TC211], and those from consortia and International bodies
- For Europe, the INSPIRE Directive is an important driver of the creation of a NSDI / MSDI. INSPIRE helps prioritise themes and work packages
- Data dissemination is planned to be primarily via the web, through new portal developments and use of WMS/WFS





Barriers to MSDI progress [1]

- Resources
- Funding
- “Policy/priorities/politics (PPP)”
- Training of personnel is key
- Effective communication
- Organisational structure
- Culture



Barriers to progress [2]

- **No agreed policy** or framework
- **No common spatial data**
- **Lack of visibility** - no responsibility / responsible MSDI expert / focal point
- **Barriers between agencies** – historical, political, bureaucratic, and national versus ‘local’ conflicts
- **Priorities different** across departments; co-operation and co-ordination between stakeholders poor



Barriers to progress [3]

- **Data held by different organisations** and at different levels – need for harmonisation and interoperability
- **Copyright**, IPR, licensing
- **Cost of data** versus “free” data
- Basic geographic data with no legal obligations versus navigational geographic data with legal implications
- **Policy issues** re: distributing digital data via the internet



Conclusions

- There is a clear need for assistance
- Developed MS's require specific MSDI assistance
- Developing MS's require generic assistance
- Less emphasis on developing MSDI /NSDI in less developed MS's
- Resources are at a premium across most HO's and at MS level
- IHO role crucial to develop understanding of and confidence in MSDI/NSDI.
- IHO should define its role and the possible help it can give to Member States



The Way Forward – The suggested IHO Role

- Organise and facilitate regional MSDI workshops
- **Produce an MSDI “cook book” explaining:**
 - what is MSDI?
 - guidelines and procedures
 - how to plan/develop an MSDI - include “good examples”, templates / practical references
 - how to sustain MSDI
 - value and benefit to stakeholders
- Set up and manage an IHO MSDI web forum (success will depend on active participation and a willingness to share knowledge)
- Produce, disseminate and manage MSDI e-training
- **Facilitation of training and knowledge transfer**



MSDIWG Work Plan

- Complete development of IHO “cook book” [work started in Sept 2008]
- Build road map for IHO training/ knowledge transfer programme
 - Design framework for e-training programme [inc: content]
 - Develop best practise examples
 - Develop framework content for IHO portal for discussion groups etc
 - Training methods
- Provide longer term [2009-2012] perspective/options to IHO [MSDI is not short term issue]

Report completion of WG tasks to EIHC in June 2009

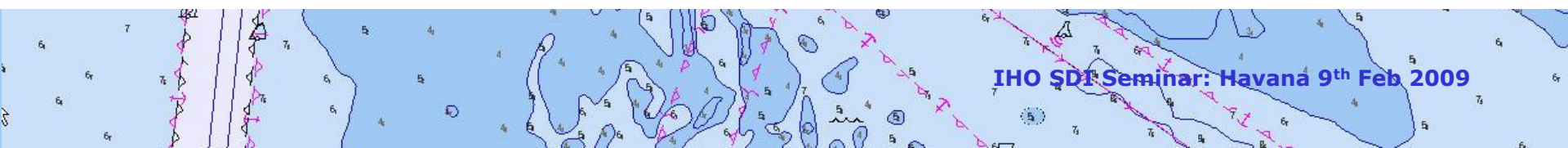


Marine Spatial Data Infrastructure (MSDI)

Policy resolution to 4th EIHC [June 2009]

The IHO will support Member States in the identification, development and implementation of an appropriate role in national Spatial Data Infrastructure (SDI) and MSDI initiatives. This will be achieved through:

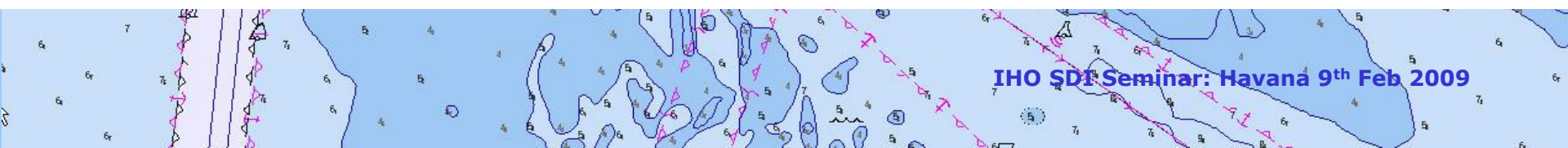
- The development and maintenance of an IHO Special Publication that will provide a definitive procedural guide to establishing an HO's role in MSDI.
- Developing an MSDI capacity building plan comprising knowledge transfer and training to Member States.





Policy resolution to 4th EIHC [2]

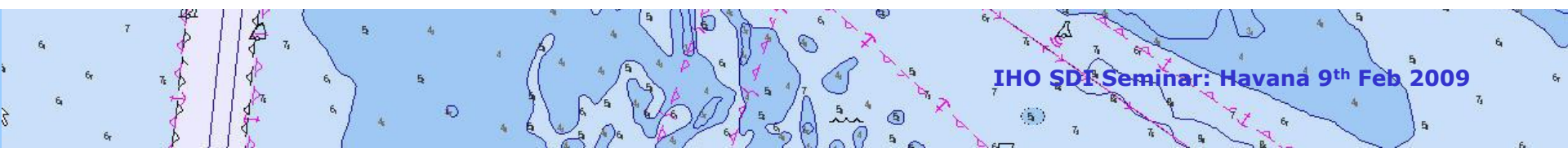
- Developing and managing the IHO web site to include material and information to support and encourage knowledge transfer, best practice and provision of on-line guidance and training material.
- Formalising relations between IHO and other SDI stakeholder groups and through actively participating in these groups to strengthen understanding and knowledge of the role of hydrography in MSDI.
- IHO Regional Hydrographic Commissions are encouraged to monitor and report progress in Member States' MSDI engagement and development as a means of benchmarking the role of Member States in MSDI.





Progress since CHRIS-20

- Framework for SDI Guide developed
- Content defined
- Authorship commenced [in small WG task teams]
- First Draft by end March 2009
- Final Draft by April 2009
- Publish May 2009





Thank You

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