MSDI and Education



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Content

- Current situation
- Education as a component of MSDI
- People and Change
- Organisational Change
- Delivering Change
- IHO Response
- Summary



MSDI - Some Challenges!



- HO's organisational structures
- Ho's are traditionally conservative
- Resistance to change
- Lack of understanding of MSDI by decision makers in HO's
- How to adapt to the dynamic geospatial world
- Traditional cartography has given way to desktop and web based map and chart production
- Making a compelling argument to invest
- Investing in people to make change happen

... the biggest challenge



Why is Education Required?

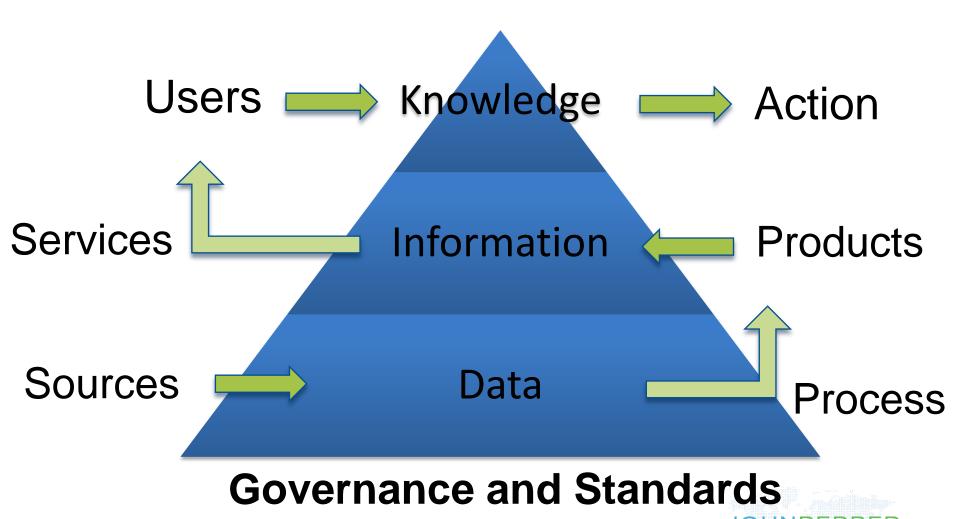
MSDI is about...

- ✓ Using data and information in a more informed manner
- ✓ Delivering "best practise"
- ✓ Good data management
- ✓ Data sharing and exchange
- ✓ Committed people
- ✓ Sharing knowledge and experience
- ✓ Working together towards common goals
- ✓ Long term programmes of work
- ✓ Contributing to regional, national and local requirements

...so we have much still to learn!



Data - Information - Knowledge



SDI - Components of Change

 Communication **Technical** Policy & Standards Governance Education (Standards) (People) Management Information Geographic Structure Content **Systems** (ICT) (Data) Commitment



People and Change

- People are adaptable...BUT!
- People react to change in different ways
- Aversion to risk is common at an individual and collective level
- The "psychological contract" people and the organisation
 - Conditions
 - Rewards
 - Holidays
 - Relationships
- Personal standing or prestige
 - Value of the Job
 - Imposition of change



Human Resistance to Change

People may find it difficult to embrace the changes in thinking and working practises to deliver MSDI because:

- They do not believe the change will work
- They believe the old way is better
- They might fail in doing things differently
- They do not trust the change "agent"
- The old way of doing things works!
- There is little evidence that the "new" way will work
- The pain of change is greater than staying the same





Types of Human Resistance

Active resistance

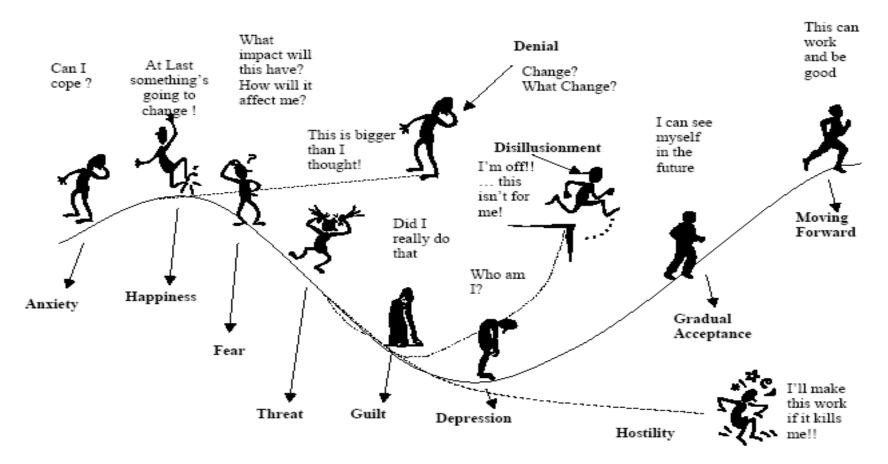
- Being critical and finding fault
- Manipulation and sabotage of an idea or process

Passive resistance

- Verbal agreements that fail to deliver
- With-holding information or resources
- Gate-keeping: selecting the information you want to hear
- Lack of knowledge about the changes required
- Fear of failure
- Lack of involvement in the process
- Can't be bothered!



The Process of Transition



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The Human Aspects of SDI

Data Management and the wider issue of developing or participating in MSDI represents both a personal and organisational challenge to HO's. This may be due to:

- The traditional nature of the business of charting
- The focus on product output rather than data issues
- A hierarchical organisational structure



The Human Aspects of SDI (cont)

- The psychological contract with employees
- A conservative navigational market slow to adapt to the digital age
- Organisational inertia the case for change has not been made
- Knowledge and skills lacking to develop a good digital infrastructure
- Lack of financial resources to fund change
- The organisation being process driven rather than market/ outcome focussed



What type of Organisation is your Hydrographic Office?

- Core business unchanged for many years (until now)
- Needs to modernise and overhaul its production processes (spatial and business data management)
- Hierarchical structure (Grade or Rank predominates)
- "Power" comes from position held in organisation
- Risk averse and slow to adapt...
- No real culture or stimulus for Change?

Bureaucratic...therefore poorly prepared to make MSDI a reality

Delivering successful Change (1)

> Set the Stage

- ✓ Create a sense of urgency —help others see the need for change
- ✓ Pull together a Guiding Team with leadership skills, credibility, communications ability, authority, analytical skills and sense of urgency

Decide What to Do

✓ Develop the Change Vision & Strategy to make the future a reality





Delivering successful Change (2)

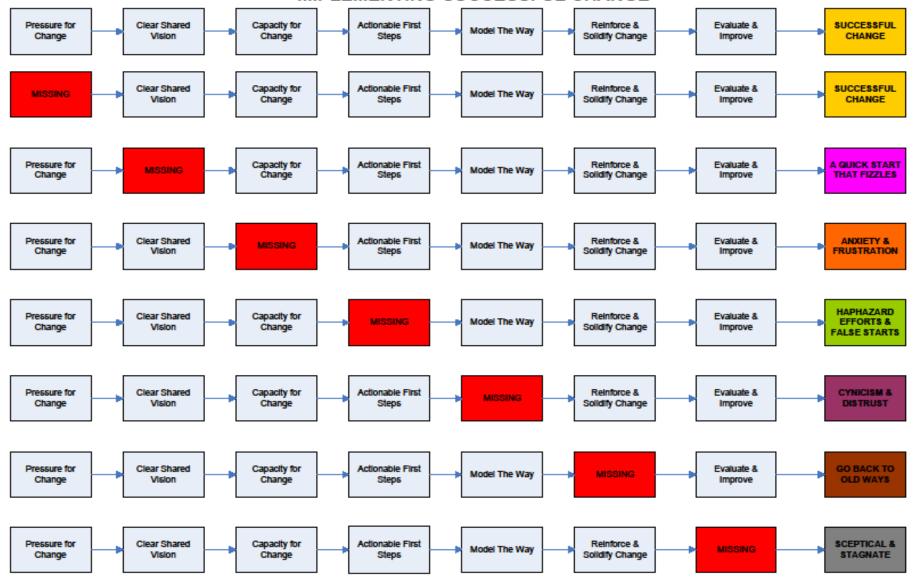
➤ Make it Happen

- ✓ Communicate to get Understanding and Buy-In make sure others accept vision and strategic approach
- ✓ Empower Others to Act remove barriers so that those who want to make the vision a reality can do!
- ✓ Produce Short-Term Wins —create visible, clear successes as soon as possible
- ✓ Don't Let Up press harder and faster after first success to initiate change after change until vision is reality

➤ Make It Stick

✓ Create a New Culture – ensure momentum is maintained
by all that replaces old ways of doing things

IMPLEMENTING SUCCESSFUL CHANGE





Check List - Things to Do

- Identify Organisational Culture
- Identify Change required
- Gain Stakeholder and Management Support
- Identify Key Staff to drive forward Change
- Participation will create ownership (The Guiding Team)
- Good Communication is Vital
- Imbue Values and Attitudes to change corporate culture
- Implement the Change with "Quick Wins"
- Training: New Skills will Reduce Resistance





IHO response to date...

- Training, Mentoring and Coaching in Data
 Management, Database Design, Data Publishing & MSDI
- Available to all MS's Directors, Senior Managers, Middle Managers, Practitioners
- Flexible syllabus tailored to user needs
- Delivery through ALL RHC's
- Post learning assessments
- 5-year programme defined [2013-17]





e-Learning

- Develop an e-learning resource at IHO
 - library of information
 - technical and management papers
 - training programmes
 - specifications and standards reinforcing knowledge gained in the class room.
 - "distance-learning"
- open source solutions e.g Moodle. URL at https://moodle.org/ and http://vimeo.com/moodlehq/overview.



So why do it?



- We have outmoded data management methods
- We need to adapt to the requirements of today's users
- We must resist perpetuating bad practises
- We may have to do it (e.g. INSPIRE)
- We can succeed together through education and learning!
- We need to avoid being left further behind as a community, technically and managerially
- Because we should all care about this!!!



Thank You



Any Questions?

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