

## The SDI Readiness Checklist

| Readiness Component  |     | Comments   |
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| <b>1. Understanding your spatial data holdings and requirements.</b>   |     | <b><i>Data is at the heart of information infrastructure.</i></b>  |
| <b><i>Have you conducted a formal (spatial) information audit?</i></b>   | Y/N | This is an art in itself, with a large body of research and pre-existing, tested methodologies.  |
| <b><i>Looked at your own internal needs?</i></b>   | Y/N | Are you collecting and using spatial data?   |
| <b><i>Identified external users' needs?</i></b>  | Y/N | Others may depend upon you for data.   |
| <b><i>Have the findings (and requirements) been expressed formally?</i></b>  | Y/N | Have you captured sufficient detail to support future decisions on metadata and data maintenance?  |
| <b><i>Is the knowledge of your data assets and information requirements sufficient to assess barriers, costs and benefits regarding its use?</i></b> | Y/N | Many countries have now created Information Asset Registers on the assumption that you cannot properly manage an asset until you know where it is! |

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| <b>2. Information Infrastructure vision</b>  |     | <i>Information infrastructures satisfy a need.</i>  |
| <b><i>Have you prepared an internal SDI 'vision' statement?</i></b>                            | Y/N | Express the <u>goals</u> and <u>expected impact</u> of use of spatial data on government operations, on the economy, on citizens, relating to mandated tasks. |
| <b><i>Is the vision supportive of (wider) organisation and/or national goals?</i></b>          | Y/N | Can you show this explicitly, when questioned, especially by stakeholders - and funders?  |
| <b><i>Does the vision address deficiencies that may have been identified in the audit?</i></b> | Y/N | 'Deficiencies' could be technical, operational, political, financial, ...   |
| <b><i>Does the vision address benefits and costs?</i></b>                                      | Y/N | Benefits to the organisation? to society?   |
| <b><i>Does the vision have a 'champion'?</i></b>   | Y/N | Has he/she publicly endorsed the vision?  |
| <b><i>Is the vision accepted by all stakeholders?</i></b>                                      | Y/N | Test this by wide(r) consultation.  |
| <b><i>Is the vision accepted by funders?</i></b>   | Y/N | All infrastructures have costs, and someone has to pay – so the 'bankers' need to be informed early.  |
| <b><i>Is there an established link to e-Government initiatives?</i></b>                        | Y/N | SDI content (data) is mainly public sector information (PSI) – focus of e-Gov programmes.   |

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| <b>3. SDI Strategy</b>  |     | <b><i>Visions are implemented by robust strategies.</i></b>  |
| <b><i>Have you developed a formal, stated SDI Implementation Strategy?</i></b>  | Y/N | Addresses the <u>inputs</u> , <u>activities</u> , <u>outputs</u> and <u>outcomes</u> that lead to the <u>impacts</u> identified in the Vision.   |
| <b><i>Have you identified and specified SDI Performance Indicators?</i></b>   | Y/N | Are these realistic and measurable? Are they acceptable to stakeholders, especially funders?   |
| <b><i>Is 'system performance' identified separately from 'infrastructure performance'?</i></b>  | Y/N | "Number of user downloads per day" from a geoportal may be measurable, but in no way related to impacts.   |
| <b><i>Does the implementation strategy identify all costs, especially related to human resources – over reasonable time frames?</i></b> | Y/N | Information infrastructures take years to implement, even within single organisations – don't expect SDI to be much different - or to happen overnight!  |
| <b><i>Can forecast benefits be attributed to the 'outputs' and 'outcomes'?</i></b>  | Y/N | Cost-benefit analysis is notoriously difficult, especially in regard to monetary value of many benefits.   |
| <b><i>Have you considered different ways to convey to decision makers the 'value' of an SDI ?</i></b>                                   | Y/N | Cost-benefit analysis is <u>not</u> the best way to look at information infrastructures. Alternatives exist in the form of value chain analysis, multi-criteria analysis, etc. What is most suitable to your organisation? |

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| <b>4. Policy Readiness</b>  |     | <b><i>“Informal” policies often equate to “no policies”.</i></b>  |
| <b><i>Does the organisation have a formal information or data policy for all forms of data and information that it creates or uses?</i></b> | Y/N | This analysis should cover all aspects of data/info policy, e.g. ownership, access, dissemination, use/re-use, charging/pricing, IPR, etc.  |
| <b><i>Is the policy in the form of enforceable ‘rules’ or general ‘principles’?</i></b>   | Y/N | Rules are more easily enforced than principles - and thus take more time and consideration to create.   |
| <b><i>Was a specific <u>spatial</u> information policy framework set out in either the Vision or Strategy documents?</i></b>                | Y/N | Such policies cannot be made in isolation from pre-existing policies, e.g. regulations on re-use of PSI, access to environmental data or for data shared under international conventions. |
| <b><i>Does the ‘SDI Policy’ sit within the general info/data policy of the organisation?</i></b>  | Y/N | Does an SDI policy contravene any existing policies, i.e. relating to software, hardware, IPR, governance?  |
| <b><i>Are policies expressed in sufficient detail to be understood and applied?</i></b>   | Y/N | Policies based on ‘general principles’ are of little practical use and often cannot be implemented.   |
| <b><i>Do mechanisms exist to <u>ensure</u> that policies are enforced?</i></b>  | Y/N | This involves ‘monitoring’ use (and mis-use!) of the SDI and governance issues.   |

| 5. Technology Readiness  |     | <b><i>Is your technology infrastructure robust?</i></b>  |
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| <b><i>Are ICT standards already in place, especially those relating to geographic information and services?</i></b>        | Y/N | This includes not only computer and network standards, but also <u>policy</u> on hardware and software purchases and use, proprietary versus open source, web services, i.e. a wide range of topics.   |
| <b><i>Do developers and custodians understand the relevant standards sufficiently well?</i></b>                            | Y/N | Experience shows that standards often exist in <u>principle</u> , but not always in <u>practice</u> . Awareness and use training may be required – tools help!   |
| <b><i>Is the ICT infrastructure sufficiently robust to handle processing and dissemination of <u>spatial</u> data?</i></b> | Y/N | Much spatial data places a significant load on computer and communications systems due to the size of files involved and/or the volume of traffic that can be generated by a spatial data application. |
| <b><i>Is the infrastructure adequate throughout the whole organisation?</i></b>  | Y/N | Can the infrastructure available to field offices support the same level of activity as that at HQ?  |

| 6. Data Readiness   |     | <b><i>“Data that is unused has no value.”</i></b>  |
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| <b><i>Is sufficient spatial data available for operational requirements, to meet all organisation goals and mandated tasks?</i></b> | Y/N | Lack of data – especially current and/or good data – is probably the most often heard complaint from those working with spatial data for service provision.  |
| <b><i>Does sufficient data capture capability exist?</i></b>  | Y/N | This relates also to being able to locate relevant data from pre-existing sources, which has policy, technology and human resources issues.  |
| <b><i>Are standards relating to <u>spatial data</u> in place and sufficiently well understood?</i></b>                              | Y/N | This relates to international or institutional standards that have an impact on data with a location attribute, including metadata, data specification (formats), transformations, dissemination (geoportals).                                   |
| <b><i>Do custodians have sufficient experience with spatial information processing technology and principles?</i></b>               | Y/N | Do spatial data custodians fully understand the importance and role of coordinate systems, transforms, scale and scalability, precision v. accuracy, cartography (in relation to portrayal, especially via geoportals)? Is more training needed? |

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| <b>7. Resource Readiness</b>  |     | <b><i>Resources take many forms – people are key!</i></b>  |
| <b><i>Are the <u>people</u> available, with appropriate data and ICT skills, to implement the SDI strategy?</i></b>                               | Y/N | Not just 'available', but available to take on new tasks while continuing with their current workload!   |
| <b><i>If not, can skills be created or improved quickly enough not to jeopardise SDI implementation?</i></b>                                      | Y/N | Training in preparation, processing and use of spatial information is as important <u>outside</u> the 'GIS Unit' as for the technology specialists in your organisation. |
| <b><i>Have you investigated what level of capacity building is needed across all stakeholders, not just for ICT or geomatics staff?</i></b>       | Y/N | An internal Skills Requirements Analysis can pay big benefits in future years, identifying where limited funds can be best targeted for training activities.             |
| <b><i>Have you looked at the impact that new tasks related to SDI implementation may have on current workloads and staffing requirements?</i></b> | Y/N | Many data-related tasks in creating and maintaining an SDI do not add significantly to existing data processing workloads – but some do - and need identification.       |
| <b><i>Is there <u>budget</u> available to implement the SDI strategy?</i></b>   | Y/N | Be practical – don't develop elaborate plans for which funding is simply not available. Be clever!   |
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| <b>8. 'Customer' Readiness &amp; Awareness</b>  |     | <b><i>Users outside your own Unit could use your data.</i></b>   |
| <b><i>Are your users going to benefit from implementing the SDI elements that you are proposing?</i></b>  | Y/N | A potential user connected to your geoportal via a 56 Kbps dial-up line is not going to benefit much from a new spatial data Decision Support System.                    |
| <b><i>Is there anything you can do to increase 'customer' readiness?</i></b>  | Y/N | Education, capacity building, instruction in using geoportals or other tools, distributing data in locally readable formats (CD/DVD) – all are important tasks.          |

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| 9. Cultural Readiness   |     | <b><i>Information cultures vary widely in and across organisations – and nations.</i></b>   |
| <b><i>Is the organisation's <u>information culture</u> amenable to change, to accommodate potentially new requirements for spatial data?</i></b>                              | Y/N | The “not invented here” syndrome and organisational inertia are two of the biggest barriers to acceptance of new technology and practices, even today.  |
| <b><i>Are stakeholders likely to accept changes to established practices that may be caused by introduction of spatial data usage?</i></b>                                    | Y/N | Working with users from outside your own Unit or Organisation requires different skills – and better understanding of others’ capabilities.   |
| <b><i>Is there an <u>information infrastructure governance structure</u> in place and does spatial data fit within that structure?</i></b>                                    | Y/N | Where does ‘spatial data’ fall within your organisation – under the ICT department, in multiple user-oriented units – and how important is the ‘spatial’ (location) data attribute to all holders of such data? |
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| <b>10. Your Readiness!?</b>   |     | <b><i>Are you ready for SDI?</i></b>  |
| <b><i>What special circumstances exist (if any) in your Unit or Organisation in relation to implementing an internal SDI or in supporting creation of a national SDI?</i></b> |     | [Answers here, please!]   |