

How to assess the status of a SDI?

Bastiaan van Loenen

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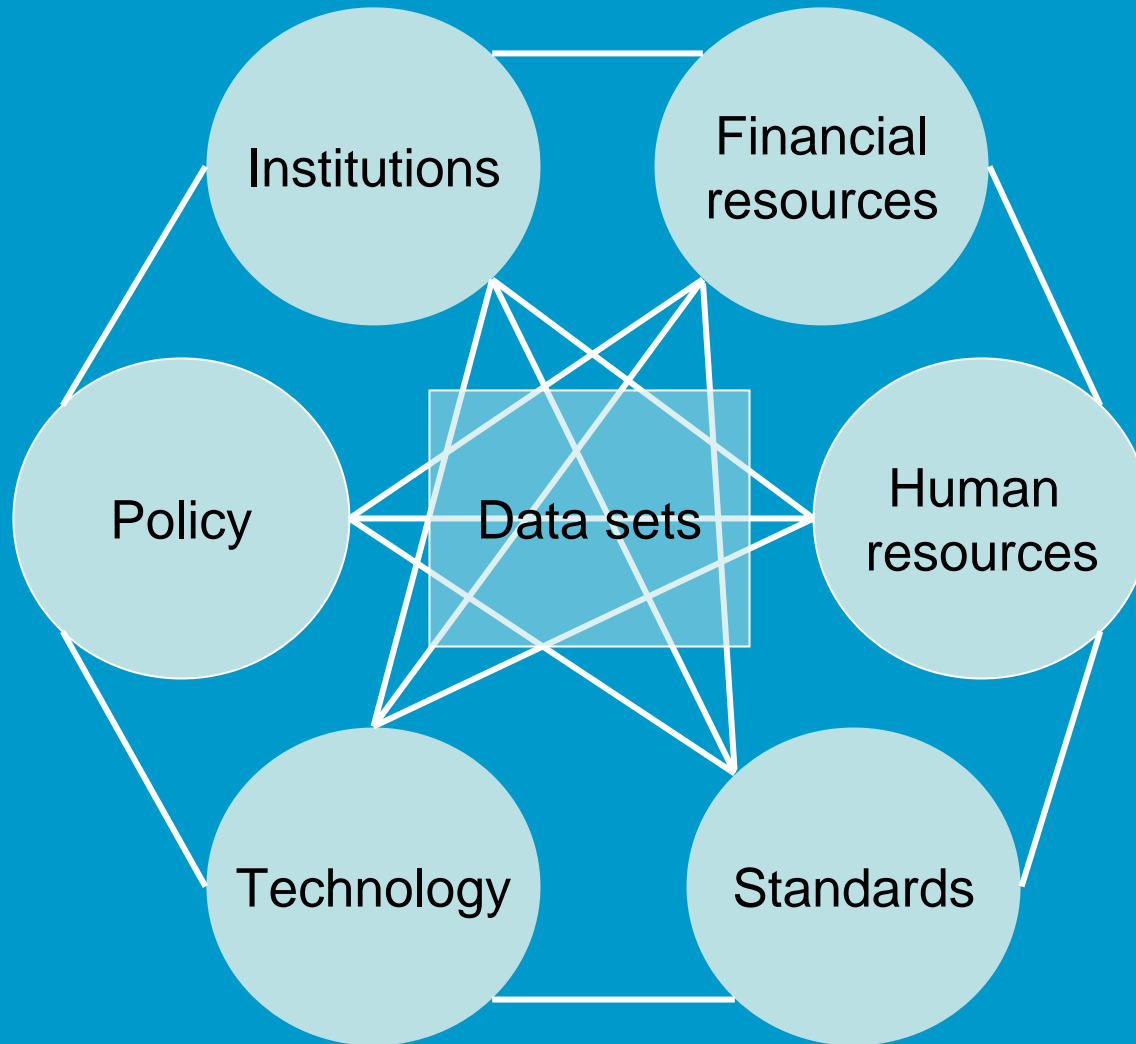
Presentation based on Kok, B.C. and B. van Loenen,
How to assess the success of national spatial data infrastructures?
CEUS 19 pp. 699-717

Overview

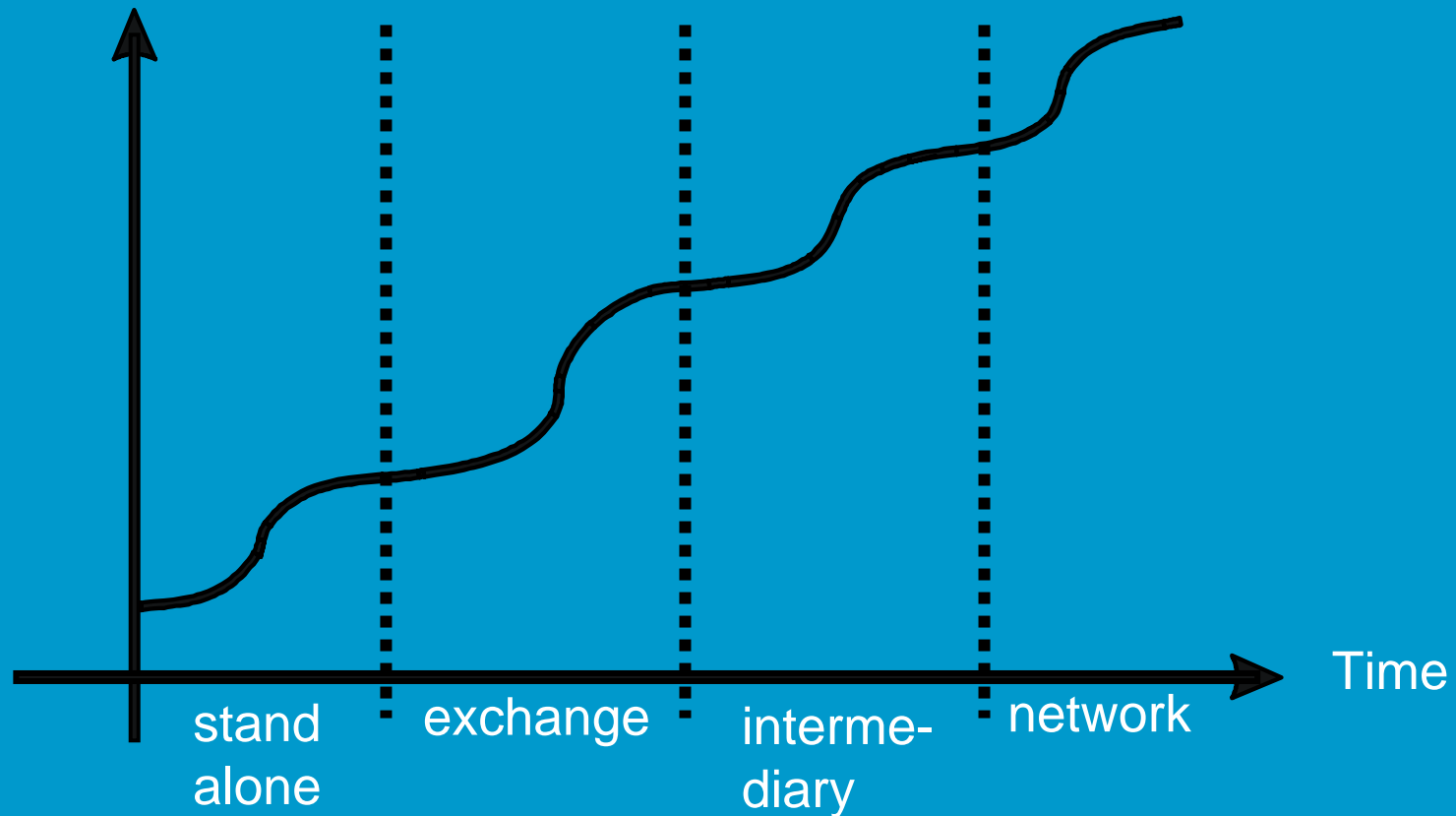
- Assessing what?
- Institutional SDI development
- Institutional components explained
- Four stages of institutional development
- Suggested ways to assess other components

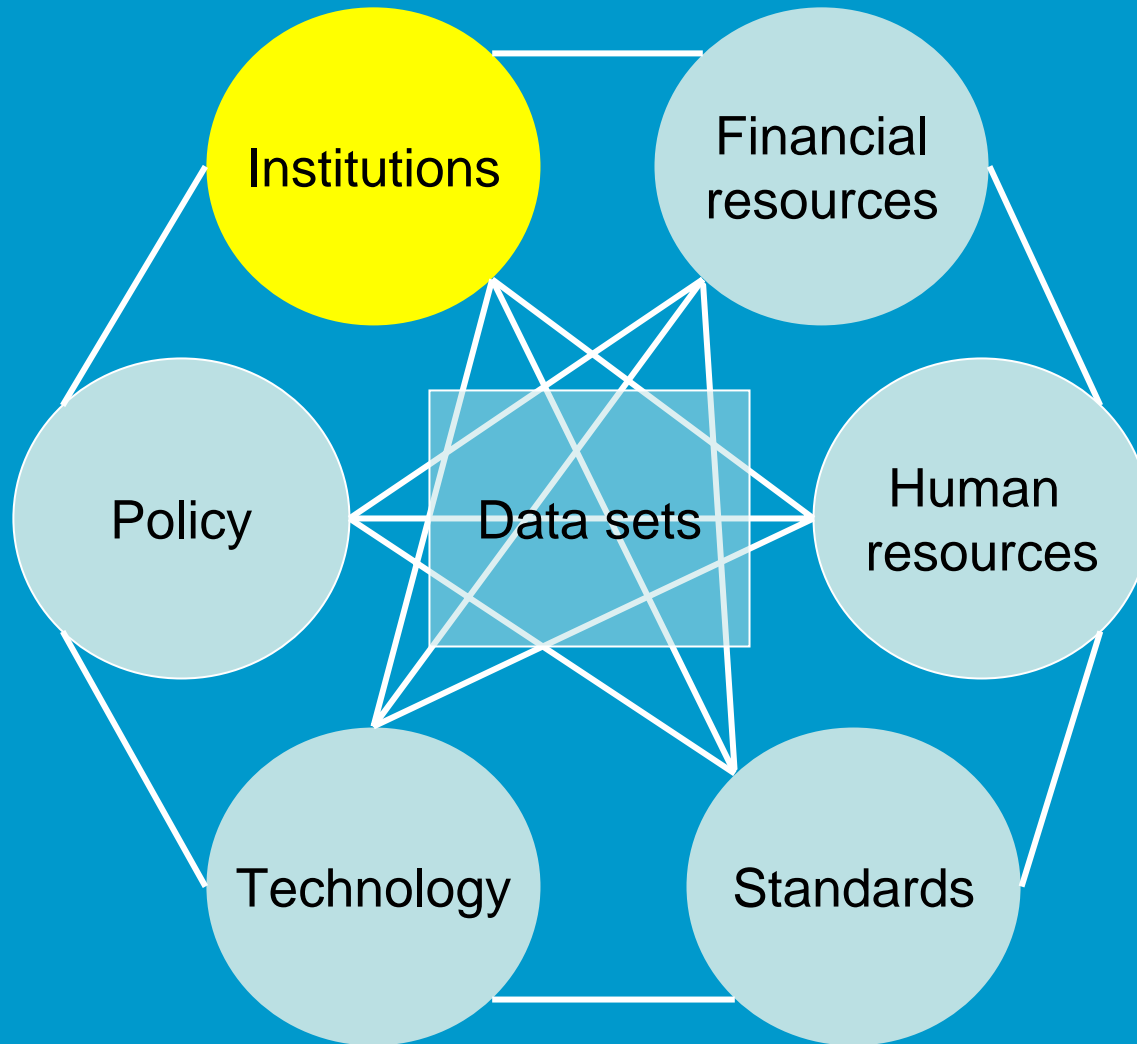
Objectives of SDI

- to support effective decision-making:
 - to promote economic development;
 - to stimulate better government, and
 - to foster environmental sustainability
- in an efficient manner



SDI-development





Institutional key aspects

- Identification of stage of SDI development through characteristics of institutional components:
 - leadership
 - vision
 - communication channels
 - self organising ability of sector

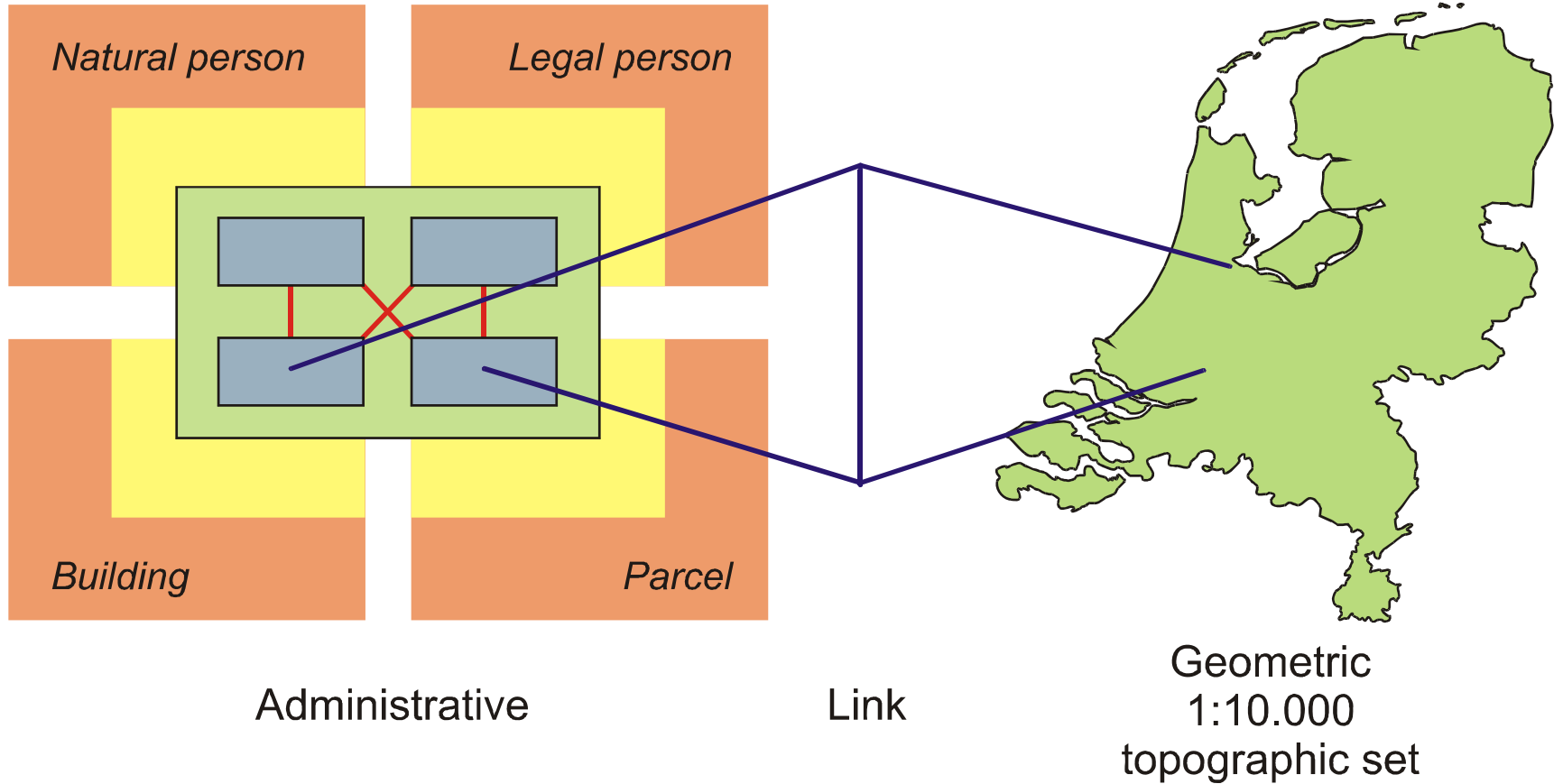
Leadership

- An entity which promotes and coordinates the development of a SDI
- A 'problem' owner, or a champion

Vision

- A needed or beneficial future situation

Structure Plan Land Information (1992)



Communication channels

- The means that enable “the exchange of thoughts, messages or information” (Webster)

Self-organising ability

A process in which parties in a system spontaneously interact, communicate, give interpretation to events, and through cooperation create new solutions
(Boonstra, 2000)

Additional institutional indicators

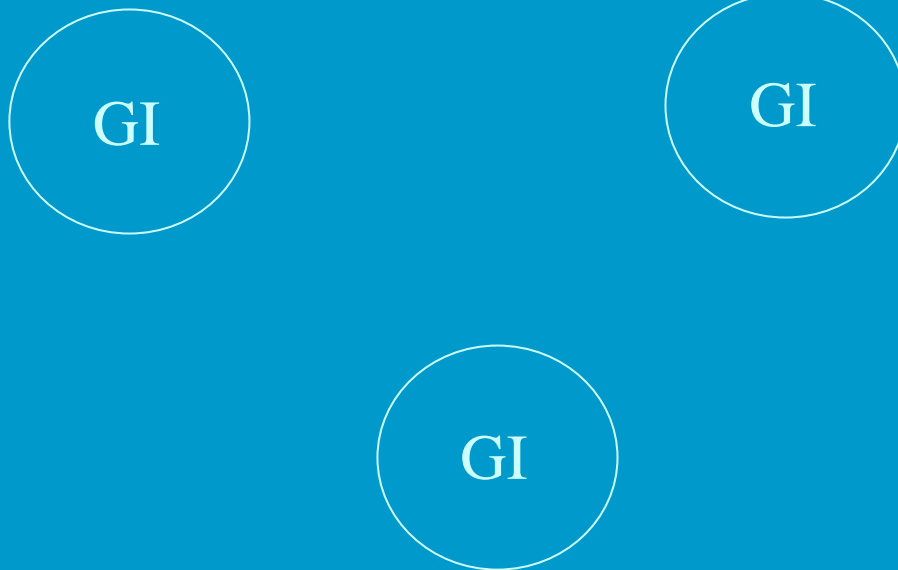
- Level of awareness for GI(I)
- Sustainability of resources

Four stages of development

- Stand-alone
- Exchange
- Intermediary
- Network

Stand-alone stage

- Islands of organisations: internalism

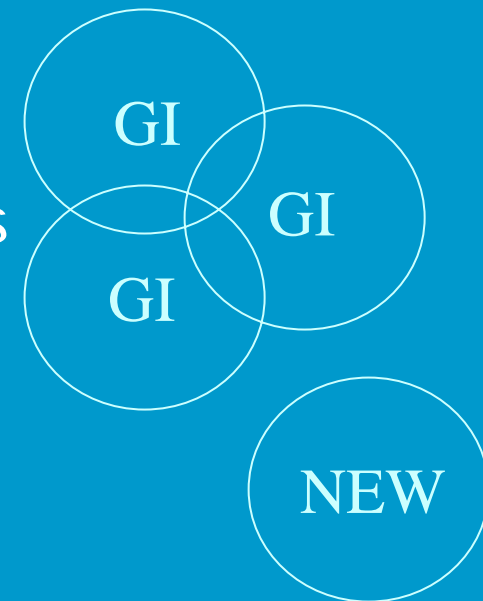


Development of GII: stand-alone

Stage \ Aspect	Stand-alone	Exchange	Intermediary	Network
Leadership	Focus on individual organisation			
Vision	Focus on individual organisation			
Communication	Focus on individual organisation			
Self organising ability	Passive problem recognition			

Exchange stage

- Technology/ dissatisfaction with current situation:
 - efficiency (outsourcing)
 - multi-disciplinary solutions
- Cooperation = interdependency increases



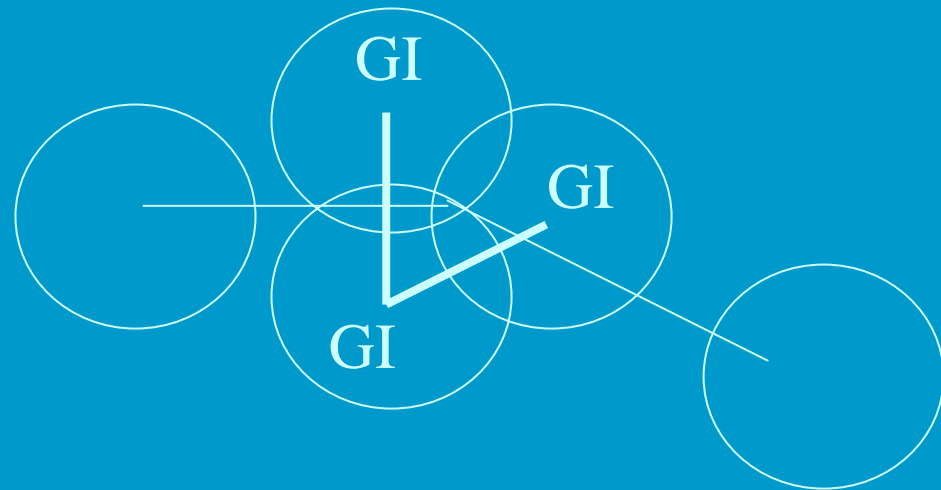
Development of GII: exchange

Stage \ Aspect	Stand-alone	Exchange	Intermediary	Network
Leadership	Focus on individual organisation	Questioned		
Vision	Focus on individual organisation	Developed		
Communication	Focus on individual organisation	Open between public parties		
Self organising ability	Passive problem recognition	Neutral		

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Intermediary stage

- Public sector focused on core tasks
- Increased interdependency
- Potential of information for value-added use acknowledged



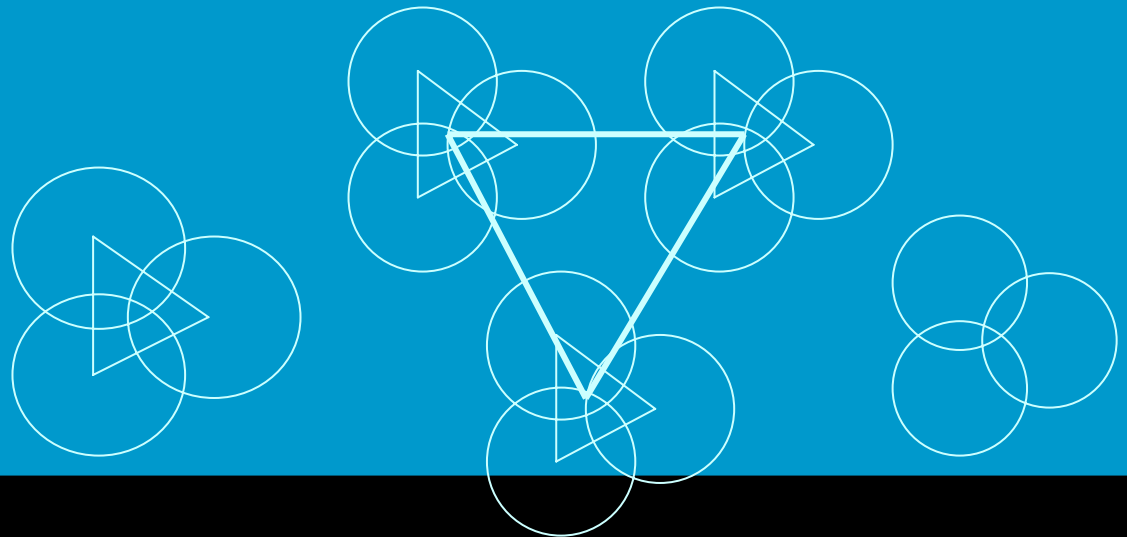
Development of GII

Stage \ Aspect	Stand-alone	Exchange	Intermediary	Network
Leadership	Focus on individual organisation	Questioned	Accepted	
Vision	Focus on individual organisation	Developed	Implemented	
Communication	Focus on individual organisation	Open between public parties	Open between all stakeholders	
Self organising ability	Passive problem recognition	Neutral	Actively addressing identified issues	

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Network stage

- Institutionalisation of the interdependencies
- Broad support for SDI
- Driver is use: virtual organisations which temporarily build on the framework the SDI provides



Development of SDI

Stage \ Aspect	Stand-alone	Exchange	Intermediary	Network
Leadership	Focus on individual organisation	Questioned	Accepted	Respected
Vision	Focus on individual organisation	Developed	Implemented	Commonly shared
Communication	Focus on individual organisation	Open between public parties	Open between all stakeholders	Open and interactive between all
Self organising ability	Passive problem recognition	Neutral	Actively addressing identified issues	Actively working on innovation

Other assessment aspects

Use development

- number of users
- number of sales
- number of satisfied users
- level of useful use
- variety of value-added products
- quality of decisions

Assessing the access network

Stage \ Aspect	Stand-alone	Exchange	Intermediary	Network
Delivery mechanism	Project	Product portal (geo-portal)	Clearinghouse	Clearinghouse with service provision
Publication of a dataset	Not	Limited metadata on provider's website	Metadata in a clearinghouse	Information and services directly available from clearinghouse

Assessing the quality of a dataset

- Quality of framework datasets:
 - content
 - ubiquitous
 - accuracy
 - interoperability

Institutional development of SDI

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