

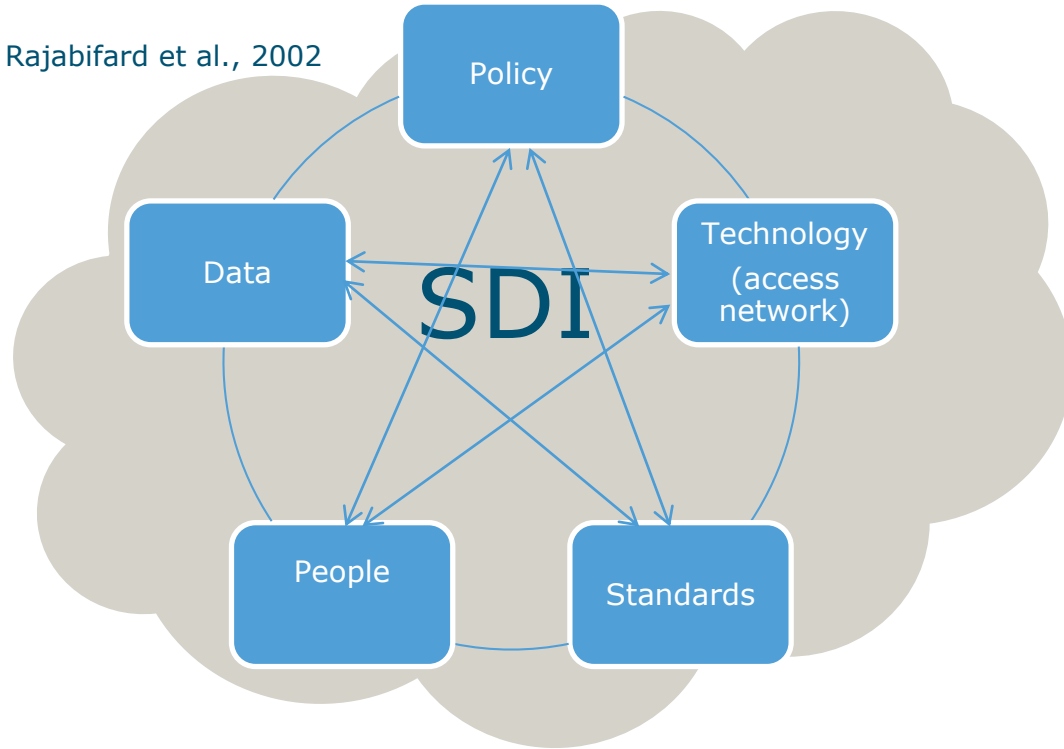
# The 'governability' of Spatial Data Infrastructures

2018-09-18, Antwerpen, Jaap-Willem Sjoukema



# Spatial Data Infrastructures

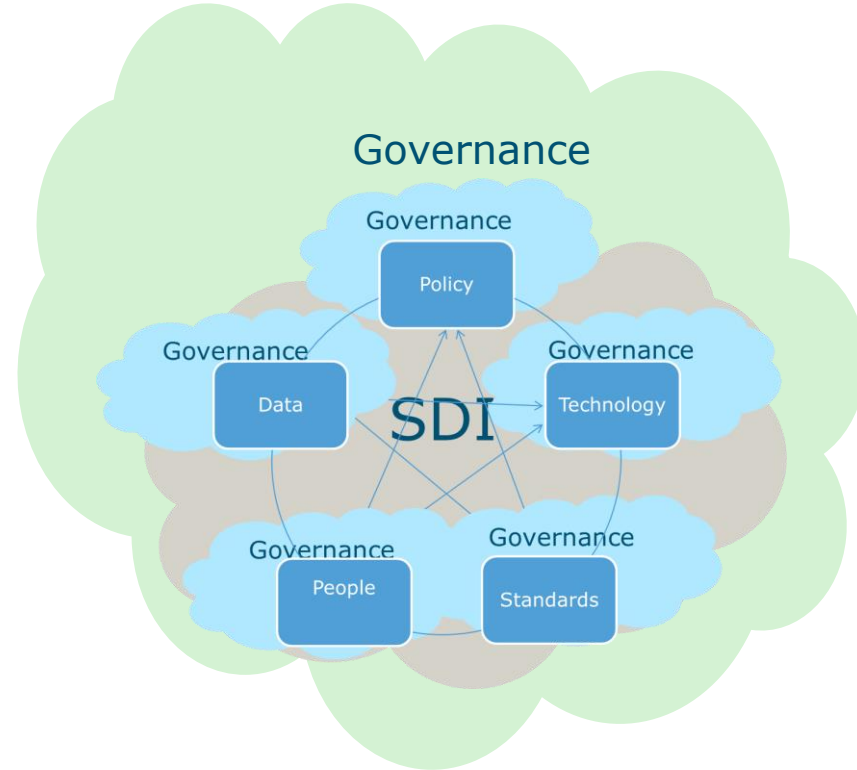
Adapted from Rajabifard et al., 2002



Every component is dynamic...

# SDI governance

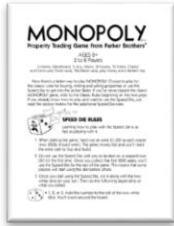
- With so many dynamics...
- And limited resources...
- We have to make choices!
- Therefore we need SDI governance
  - For its components
  - And the 'sum of the parts'



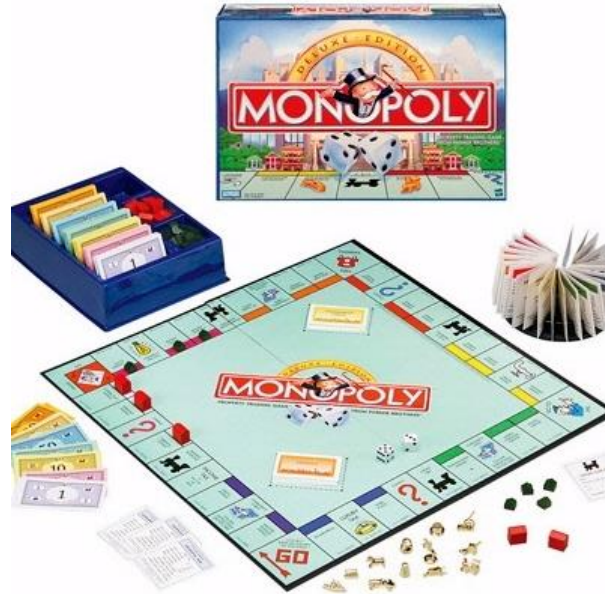
# But what is governance?

No common definitions, but common ingredients:

- Actors/stakeholders (e.g. government, markets, civil society)
- Institutions/structures (e.g. laws, rules, organizations, culture)
- Interactions/Steering mechanisms
  - Hierarchies
  - Networks
  - Markets/self-steering



# Governance = the total game play



Not about results, but about the process to come to results!

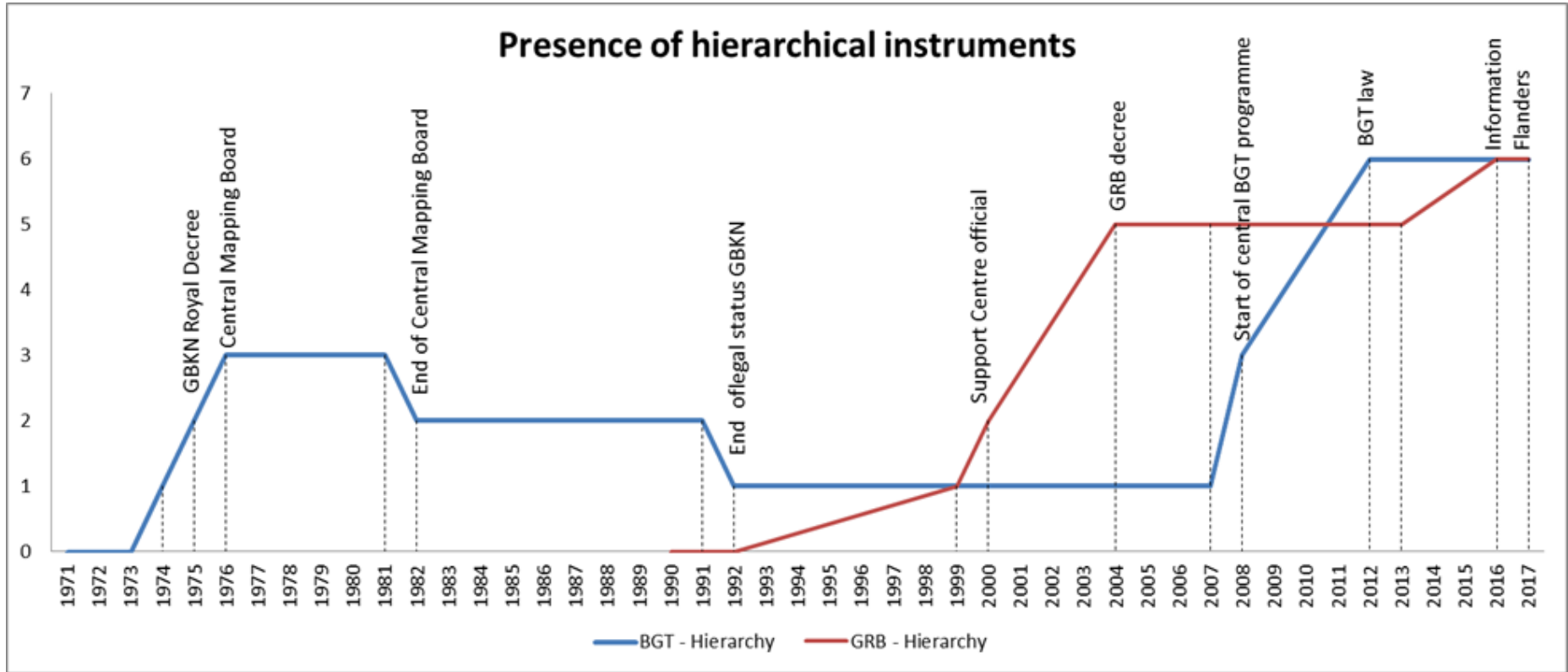
# My research

- PhD project to study 'Effective governance for Spatial Data Infrastructures'
- First step:
  - Exploring the dynamics of SDI governance
  - Case study of two longitudinal SDI developments:
    - BGT (Netherlands, from around 1970 – now)
    - GRB (Flanders, Belgium from around 1990 – now)
  - Article: <http://www.mdpi.com/2220-9964/6/8/251>

# Main conclusions first research

- Governance and SDIs are clearly dynamic as the actors, structures and interactions changed from time to time.
- Both developments had an almost failed start, but these 'crisis moments' sparked self-organization and governance improvements, which led to a more productive development
  - It can easily take 20-25 years from the first ideas to a successful implementation of an SDI!
- Both initiatives accumulated a broader mix of self steering, network and hierarchy-type interactions during the years

# Rise of hierarchical instruments



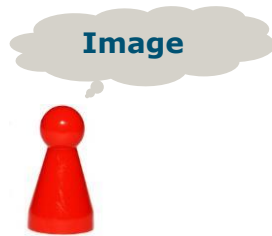


# Answers leading to more questions

- SDIs and its governance are becoming more mature and are clearly adaptive to some extent.
- But is it mature enough? And can we determine it?
- Can we measure and determine the 'governability' of SDIs?
  - Governability is '*the capacity to solve urgent societal problems*' (Kersbergen & Van der Waarden 2004)
- Therefore we have to understand the governing process of SDIs and its mechanisms.

# The governing process

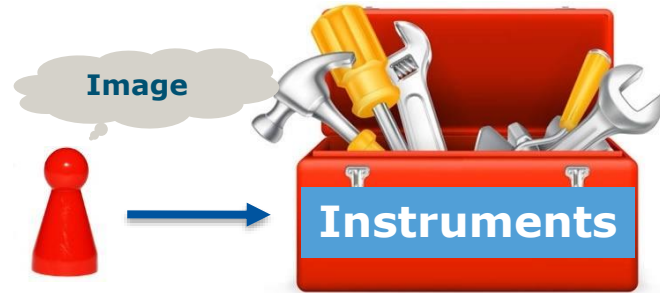
- An actor has an **image** or perception about a problem



- Problems are not objective: *'they are social constructions; perception of actors on what makes a situation problematic (Klijn and Koppenjan 2016, p.45).*
- These images can consist of facts but also assumptions.

# The governing process

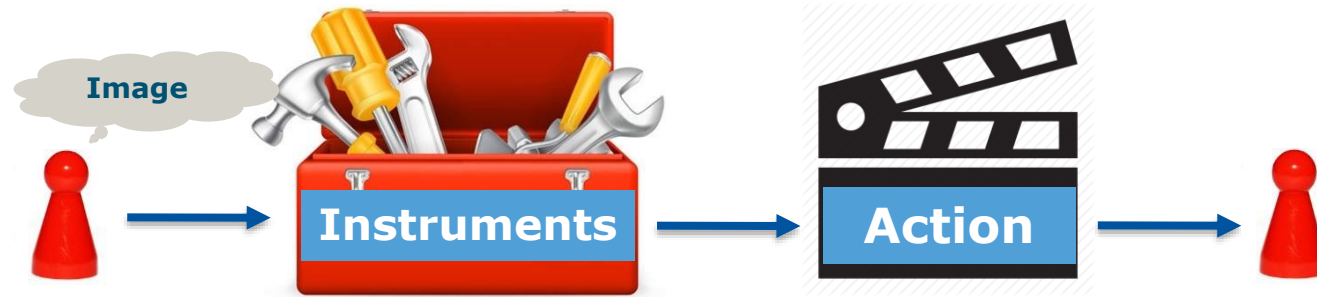
- An actor will choose instrument(s) which he/she thinks will solve the problem



- Governing instruments are used to force, enable or facilitate certain interactions.

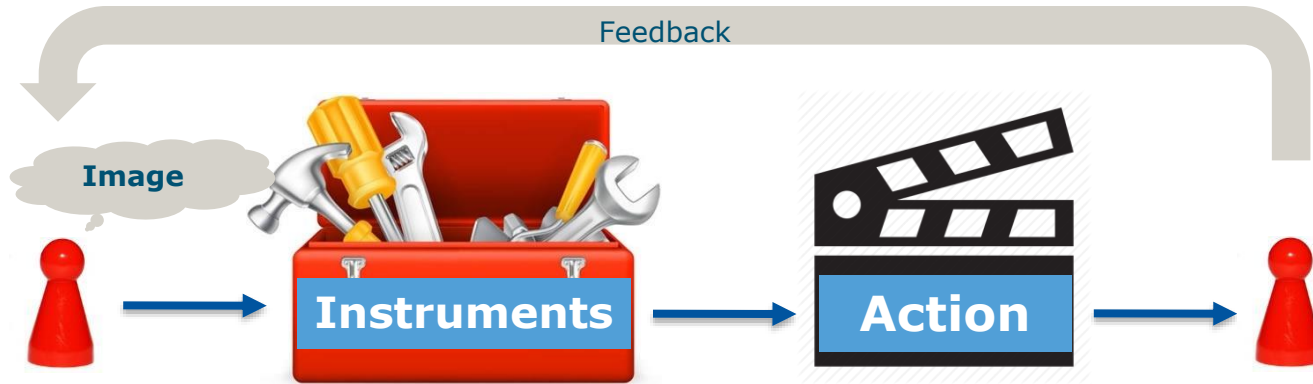
# The governing process

- The instrument is put into action, which will affect other actor(s)



- The action element '*relies upon convincing and socially penetrating images and sufficient social-political will or support (Kooiman, 2003, p. 62)*'.

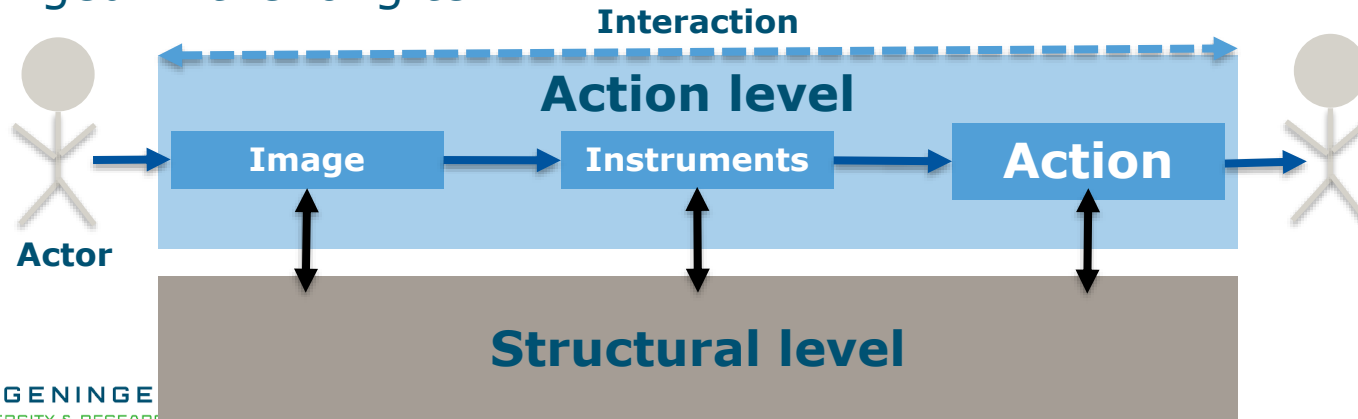
# The governing process



- The affected actor(s) will provide feedback which can alter the image of the initiator (= **interaction**)

# The governing process

- We can split the governing process in two dimensions:
  - Action level & Structural level
- Institutions/structures will enable or constrain governing interaction
- Structures are relatively stable in the short term, but can be changed in the long term.



# The governing process & SDI instruments

Dimension	Images	Instruments	Action
<b>Action level</b>	Vision Strategic planning Involvement of stakeholders Collective decision making Feedback	Knowledge and information sharing Communication Access mechanisms Partnerships Financial management	Leadership Self-organising ability Co-ordination
<b>Structural level</b>	Key performance indicators Strategic Evaluation Capacity building Culture Coordinating functions/entities	Financial resources Knowledge resources Regulated markets Legal framework Licences	Support Bureaucracy

# Next research steps

- Performing interviews about three SDI cases (stable, political driven and instable case)
- What do actors perceive as crucial governance moments and instruments for SDI success or failure?
- Which of those can we find in literature?
- And what type of instruments in the governing process are lacking?

To be continued...!



# Thank you!

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