

Capacity Building Aspects for a Geospatial Data Infrastructure

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What is capacity building?

Improvements in the ability of public sector organisations to perform appropriate tasks, either singly or in cooperation with other organisations

Harvard Institute for International Development (1997)

What is capacity building for NGDI in a broad sense?

Improvements in the ability of **NMOs**, **Statistics Departments**, **Environmental Departments**, **Geological Surveys**, **Soil Surveys**, etc to perform appropriate tasks within the broad set of principles of a **National Geospatial Data Infrastructure**

What is capacity building for NGDI in a narrower sense, i.e for an NMO?

Improvements in the ability of the NMO, to lead in the development and maintenance of foundation data within the broad set of principles of a NGDI

What does “to lead” mean?

- **guarantee foundation data completeness, consistency and accuracy**
- **catalyse and collaborate in partnerships**
- **integrate data from other participants**

The product of research in GI science is innovation

Effectiveness of innovation

 quality

 penetration

 speed

Innovation is achieved through

 ideas

 people

 products

People and product innovation are the issues now

People innovation

Capacity building of **National Mapping
Organisations**

Product innovation

development and maintenance of **foundation
data**

National Foundation Data & Characteristics

National Foundation Data

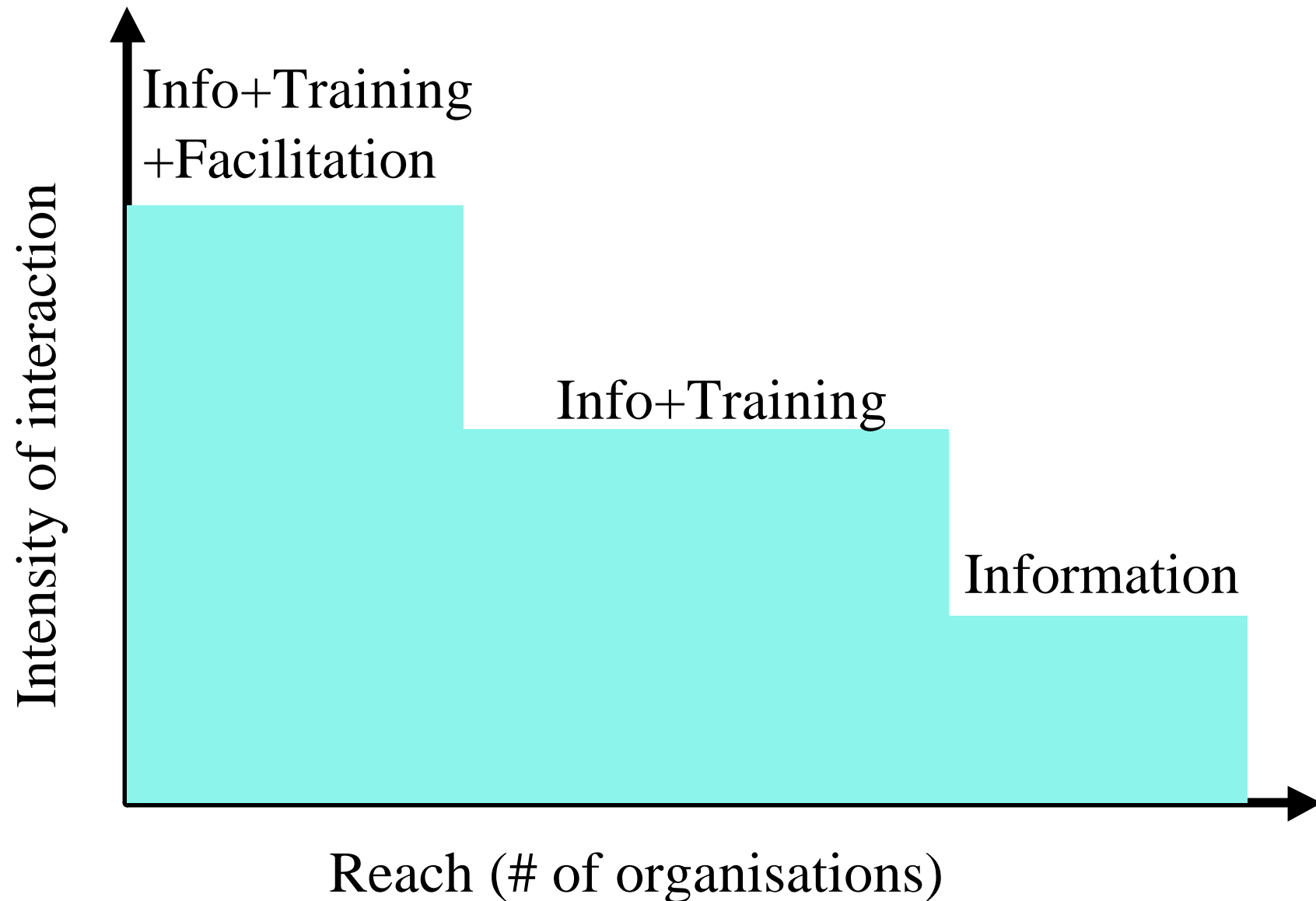
- ✍ **Terrestrial Reference Frame**
- ✍ **Digital orthoimagery**
- ✍ **Digital elevation data**
- ✍ **Vector data**
- ✍ **Land cover data**
- ✍ **Geographical names**

Characteristics

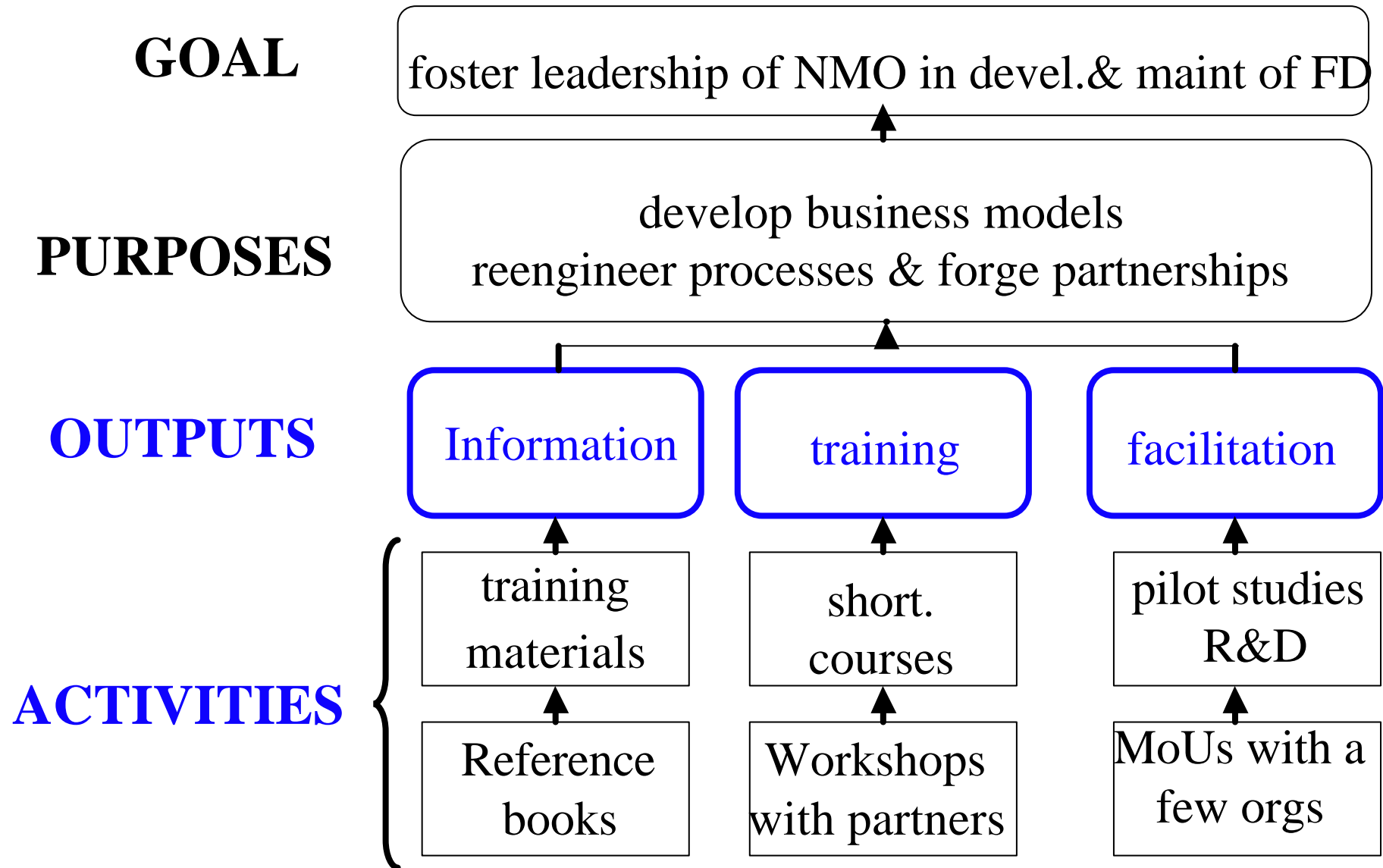
- ✍ **Variable positional accuracy**
- ✍ **Seamlessness**
- ✍ **Currency**
- ✍ **Consistently classified**
- ✍ **Variable resolution**
- ✍ **Consistency and integration**

Adapted from National Map, USGS, 2001

Penetration = Intensity of interaction and Reach



A capacity building model for an NMO



A capacity building model for NGDI: Information

**Information:
Co-produce with clients & Disseminate Widely(*)**

Training materials on:

- business models for data generation & maintenance
- reengineering of production processes

- Reference books
- case studies

(*)widely = e.g. all member countries of PC IDEA

A capacity building model for NGDI: Training

**Training:
less organisations involved (*)**

Short, intensive courses on
- GI technology, information policy, GI management

Regional workshops
- to align own organisation & partners to the goal
- evaluate data holdings (own and others')

(*) less organisations = e.g. selected orgs in all central American countries

A capacity building model for NGDI: Facilitation

Facilitation:
Very few, committed organisations involved(*)

Pilot studies

- change business practices; process reengineering
- develop & demonstrate SDI test beds (walk the talk)

Agreements and MoUs with partners

- committed to change
- willing to play central roles in the process

(*) very few orgs = e.g. Cadastres and NMOs of 2 Central American countries

GDI is a paradigm in international education in Geoinformatics

