



# International Institute for Geo-Information Science and Earth Observation ITC

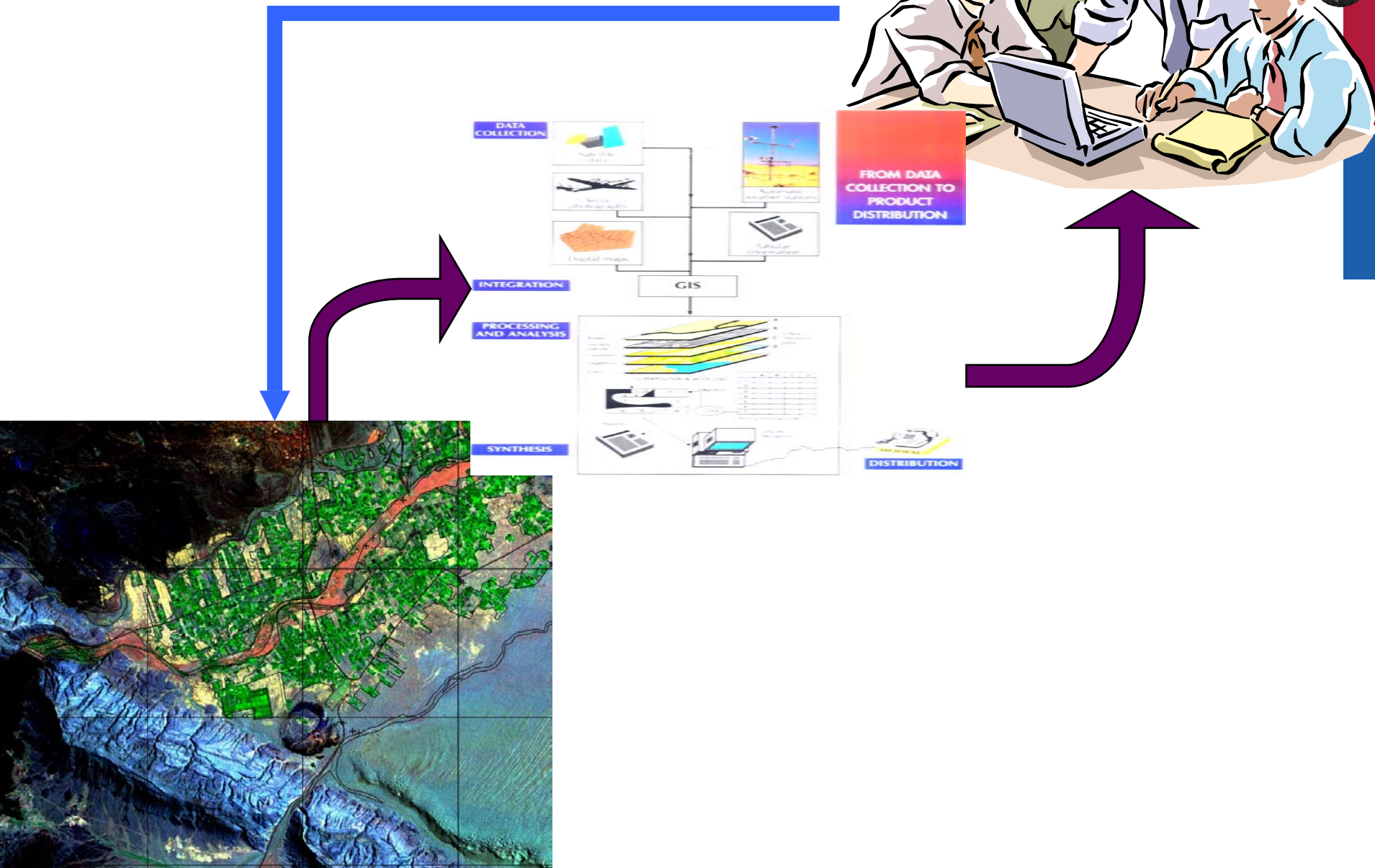
## “From Capacity Building to Building on Capacity”

Martien Molenaar  
Rector



- An institute for international education since 1950
- The knowledge field of ITC is Geo-information Science and Earth Observation
- The activities of ITC aim primarily at capacity building and institutional development
- The focus is on LDC's
- Annual budget ~ 21 + 8 M€,  
Staff 250 FTE - 280 persons (Ac staff:130 FTE)

# Geo-information for governance

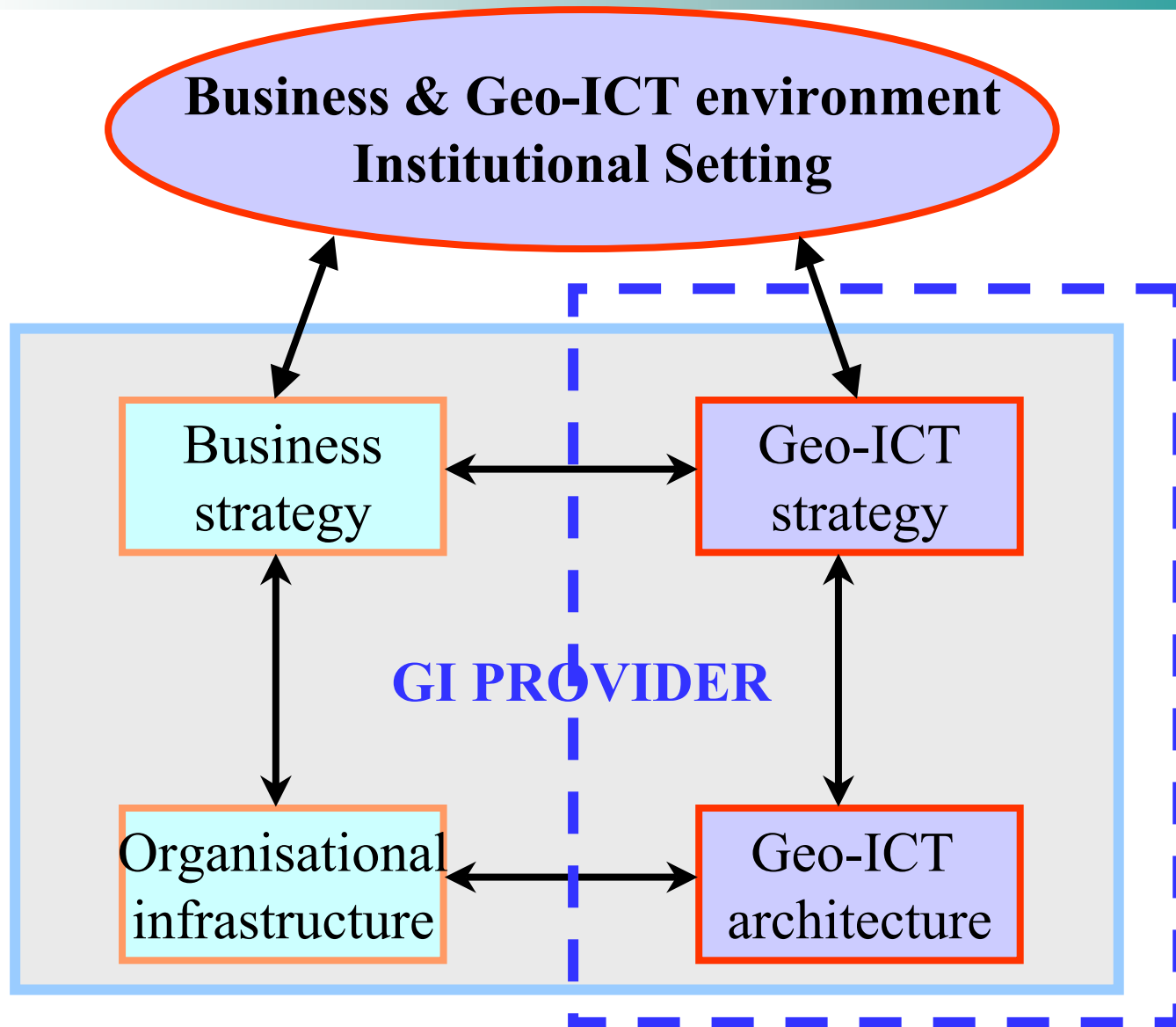


# Elements of governance



- **Multi level policy implementation**
- **Multi actor policy implementation**
- **Multi faceted character of problems and objectives**
- **Multi instrumental character of policy strategies**
- **Multi resource base for policy implementation**

# Required business strategies



# Capacity building



PURPOSE	FOCUS
HUMAN RESOURCES DEVELOPMENT	Supply of technical and professional personnel
ORGANIZATIONAL STRENGTHENING	Strengthening the management capacity of organizations: embedding GITC (systems and processes) embedding strategic management principles
INSTITUTIONAL STRENGTHENING	Strengthening the capacity to develop and negotiate appropriate mandates and modus operandi as well as appropriate legal and regulatory frameworks

# Three major groups of GI-professionals



- 1. Experts in the field of spatial information handling  
(or specialists in certain aspects of this field),**
- 2. Users of geo-information and**
- 3. Professionals and policy makers,  
aware of the importance of  
geo-information for Civil Society.**

# Two types of focal problem areas:



- **Problem areas should where geoinformation science and earth observation play an essential role to find solutions**
- **Problem areas that need solutions to guarantee relevant, economic, timely and reliable information provision**



# ITC Scientific departments:

**Earth Observation Science (EOS)**

**Geo-Information Processing (GIP)**

**Urban Planning and Geo-Info  
Management (PGM)**

**Natural Resources (NRS)**

**Water Resources (WRS)**

**Earth Systems Analysis (ESA)**



# Research themes

## Geo-information provision for:

- 1 strengthening civil society
- 2 the multifunctional use of space
- 3 natural disasters and environment
- 4 food and water security
- 5 global change monitoring.



# Education at ITC



**PhD program** **42 months**

**MSc Program** **18 months**

*MSc in Geo-information Science and Earth Observation*

**(Professional) Master Program** **12 months**

*Master in Geo-information Science and Earth Observation*

**Short tailor-made courses**

# MSc program

Geoinformatics	GFM
Geo-information Management	GIM
Urban Planning and Management	UPM
Natural Resources Management	NRS
Water Resources and Environmental Management	WREM
Applied Earth Sciences	AES
Environmental Modeling and Management	GEM

ITC leads *Erasmus Mundus* program with universities  
of Lund, Southampton, Warsaw

# **MSc program (in preparation)**



**Land Administration**

**Governance and Spatial Information  
Management**

**(Professional) Master program**

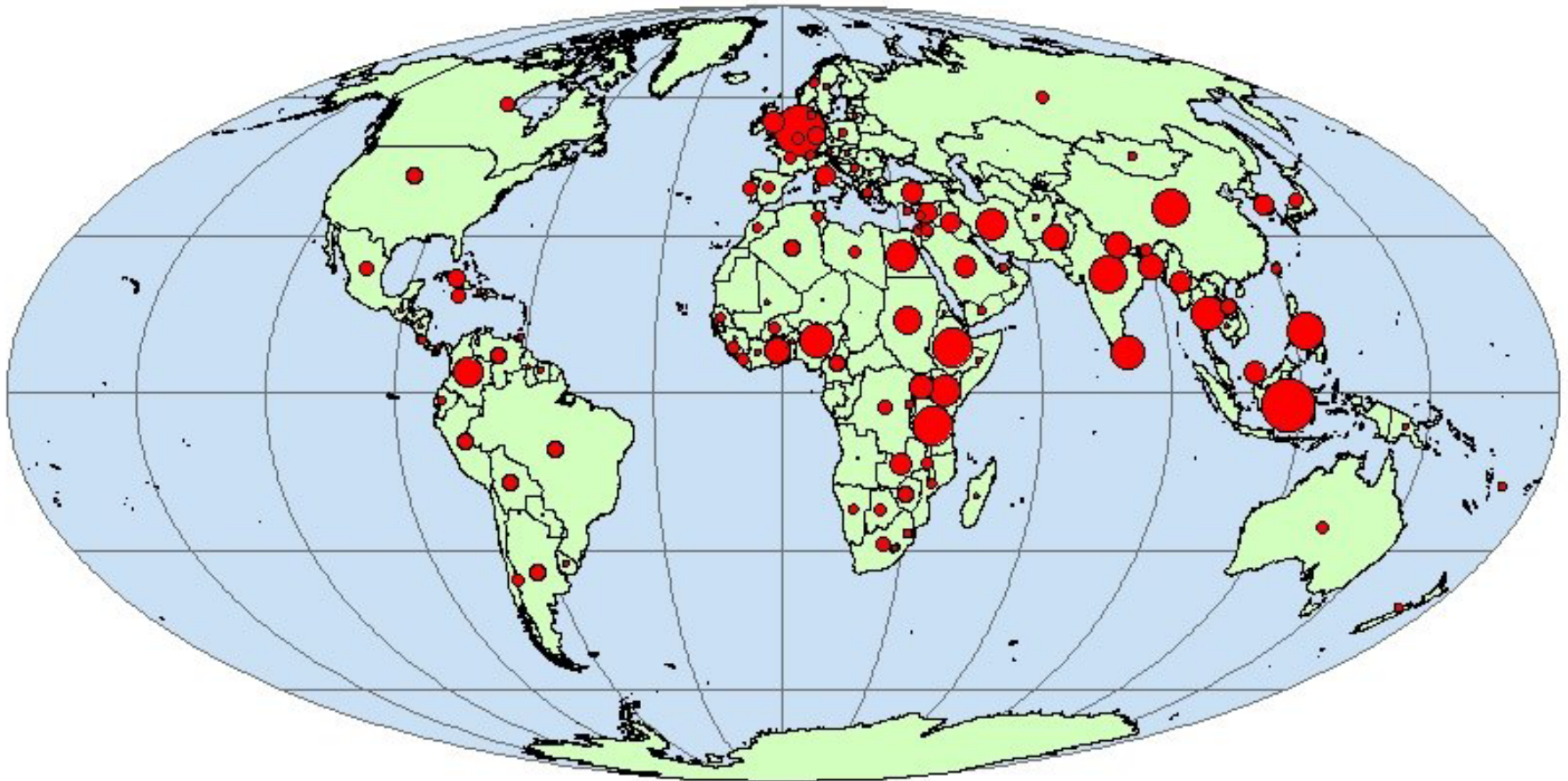
**Geoinformatics** **GFM**

**Geo-information Management** **GIM**

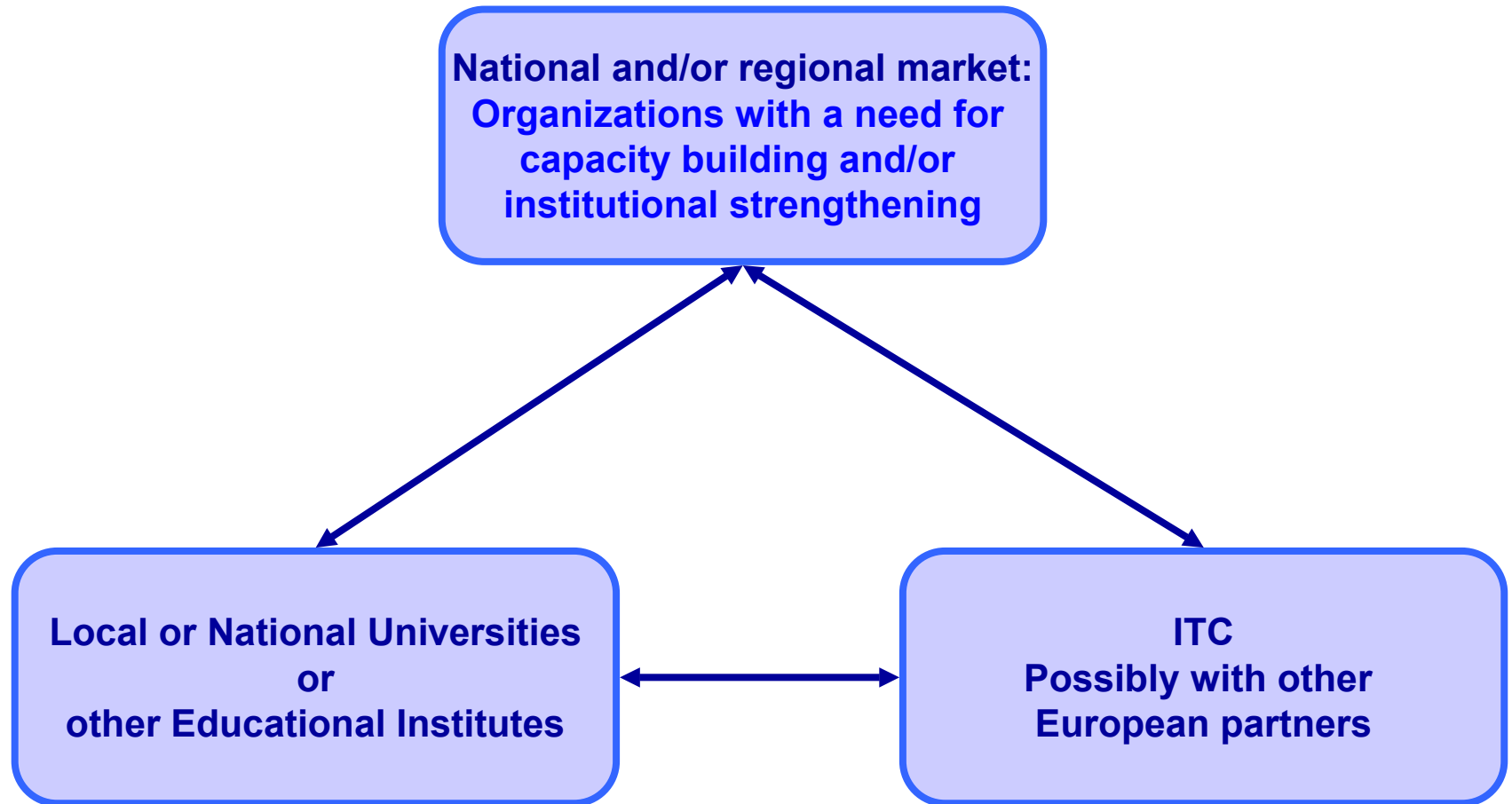
**Natural Resources Management** **NRS**

**Total course participants 1950 – 2005: 17.000\***

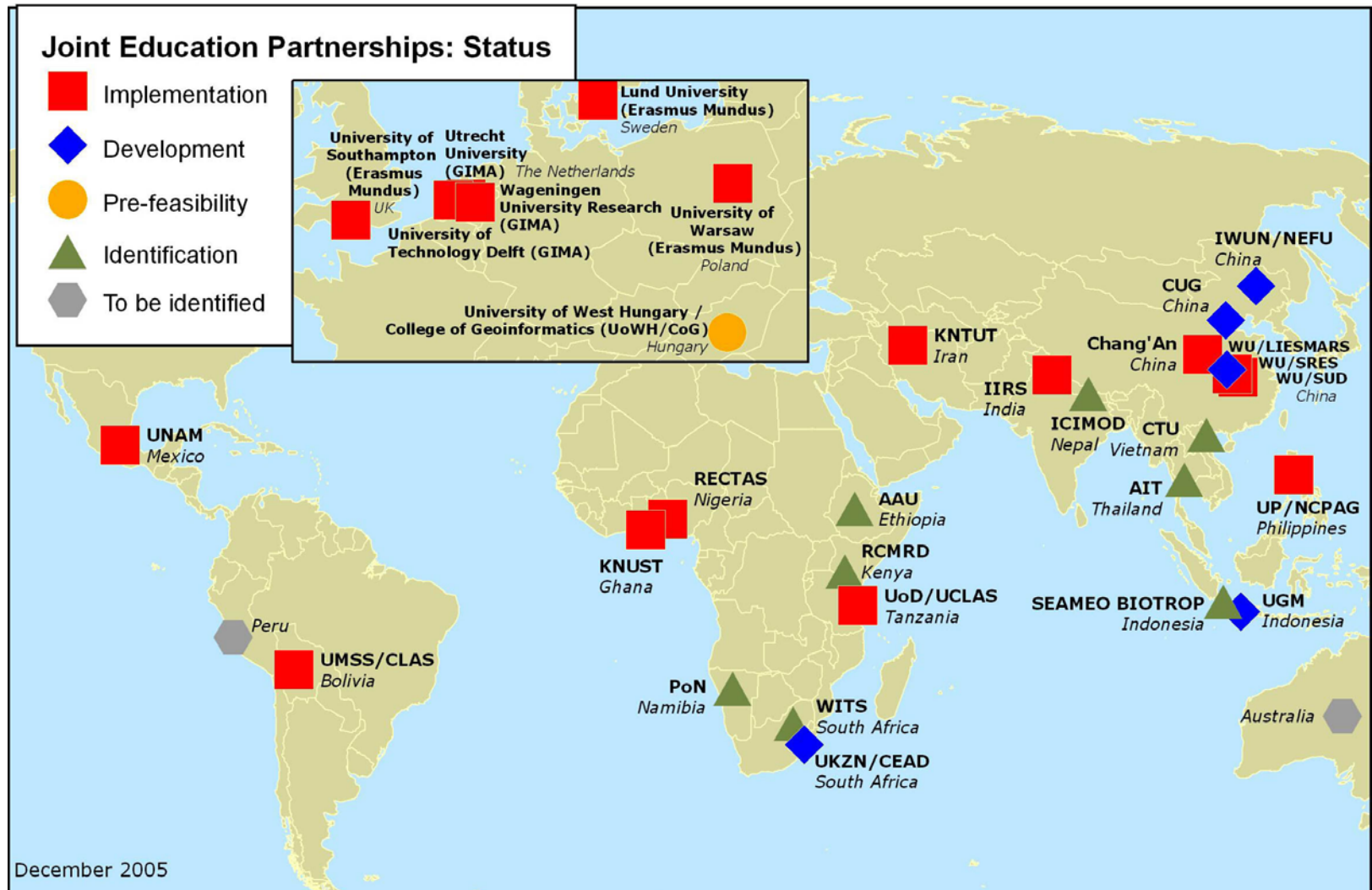
**Total countries 1950 – 2005: 165**



# PARTNERSHIPS FOR EDUCATION



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# Cooperation with international organizations



## United Nations University

**ITC is associated organization of UNU**

- Capacity building program for Land Administration
- Capacity building program for Disaster Management

**UN-Habitat**

**UN-OOSA**

**UNESCO**

**FAO**

**GEO Capacity Building Program**

# Every morning in Africa



**Every morning in Africa, a gazelle wakes up**

**It knows it must run faster than the fastest lion  
or will be killed.**

**Every morning a lion wakes up.**

**It knows that it must outrun the slowest gazelle  
or it will starve to death.**

**It doesn't matter whether you are a lion  
or a gazelle.**

**When the sun comes up, you better start running.**

Thank you



**Good Governance  
requires  
Good Geo-information**

# Cooperation with Dutch Universities



- **University Twente (penvoerder)**
- **University Utrecht**
- **Technical University Delft**
- **Wageningen University and Research (WUR)**

# Urban Planning and Land Administration



Context \ <i>Process</i>	Data acquisition	Storage & retrieval	Processing & presentation	Dissemination & use
Application domain				
Technology				
Information management				
Inst. setting & policy				

	Primary subject		Tertiary subject
	Secondary subject		No subject

# Natural Resource Management; Water Resources and Environmental Management; Earth Resources and Environmental Geosciences



<b>Context</b> / <i>Process</i>	<b>Data acquisition</b>	<b>Storage &amp; retrieval</b>	<b>Processing &amp; presentation</b>	<b>Dissemination &amp; use</b>
<b>Application domain</b>				
<b>Technology</b>				
<b>Information management</b>				
<b>Inst. setting &amp; policy</b>				

	<b>Primary subject</b>		<b>Tertiary subject</b>
	<b>Secondary subject</b>		<b>No subject</b>

# Geoinformatics



<b>Context</b> \ <i>Process</i>	<b>Data acquisition</b>	<b>Storage &amp; retrieval</b>	<b>Processing &amp; presentation</b>	<b>Dissemination &amp; use</b>
<b>Application domain</b>				
<b>Technology</b>				
<b>Information management</b>				
<b>Inst. setting &amp; policy</b>				

	<b>Primary subject</b>		<b>Tertiary subject</b>
	<b>Secondary subject</b>		<b>No subject</b>



# Geoinformation management



Context \ <i>Process</i>	Data acquisition	Storage & retrieval	Processing & presentation	Dissemination & use
Application domain				
Technology				
Information management				
Inst. setting & policy				

	Primary subject		Tertiary subject
	Secondary subject		No subject