

# BuSK – Building Shared Knowledge capital to support natural resource governance in the Northern periphery - 2016-2019



# Participatory methods to increase local voice in land use planning.

Stefan Sandström & Per Sandström, SLU, Sweden

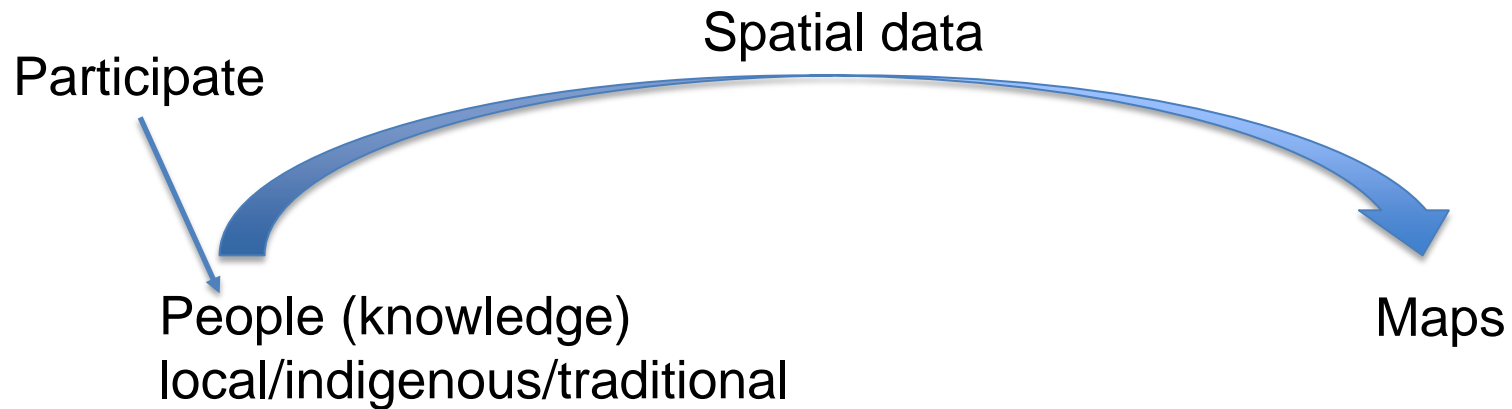
- Participation (P)?
- GIS: Geographic Information System
- PGIS vs. PPGIS
- RenGIS vs. IRENMARK vs. BuSK

Rovaniemi 190212

# GIS

Geographic Information System

- Capture
  - Store
  - Manipulate
  - Analyze
  - Manage
  - Present
- } data



# Participation

Anna Lawrence 2006

Participate: To share or take part

Participation a means or a goal?

1. Public participation in environmental decision-making

- Participation in a task defined by others (top down, extraction)

2. Action-oriented approach to community participation

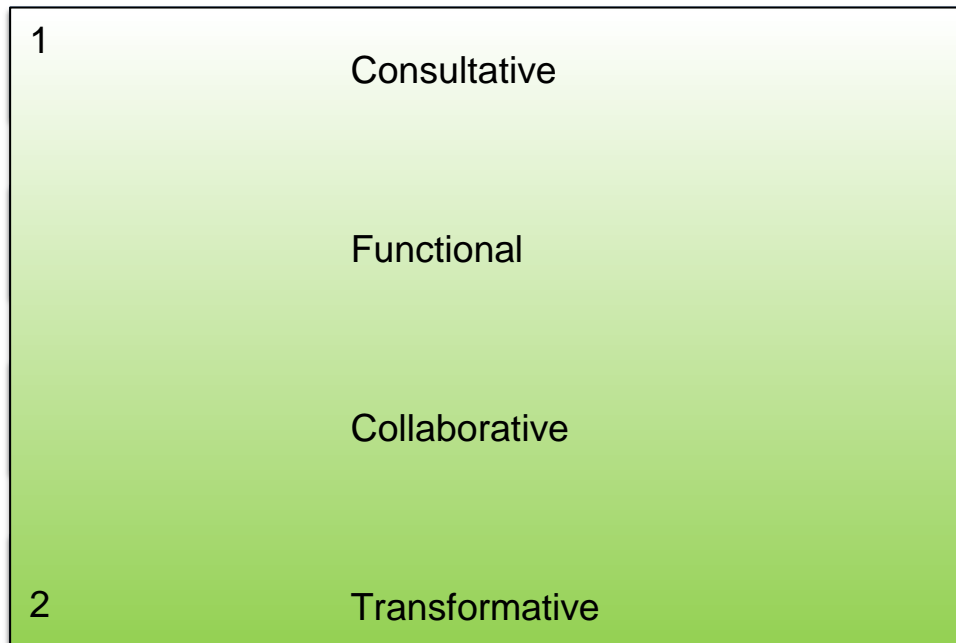
- Participation a process that change power (bottom up, learning)

# Participation

Anna Lawrence 2006

Sherry Arnstein 1969, others

## Participation ladder(s)



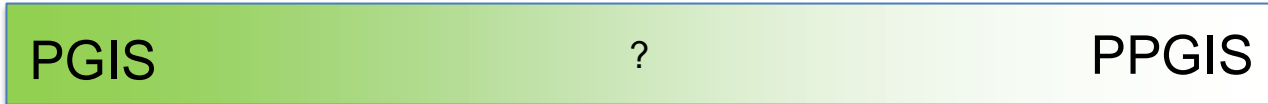
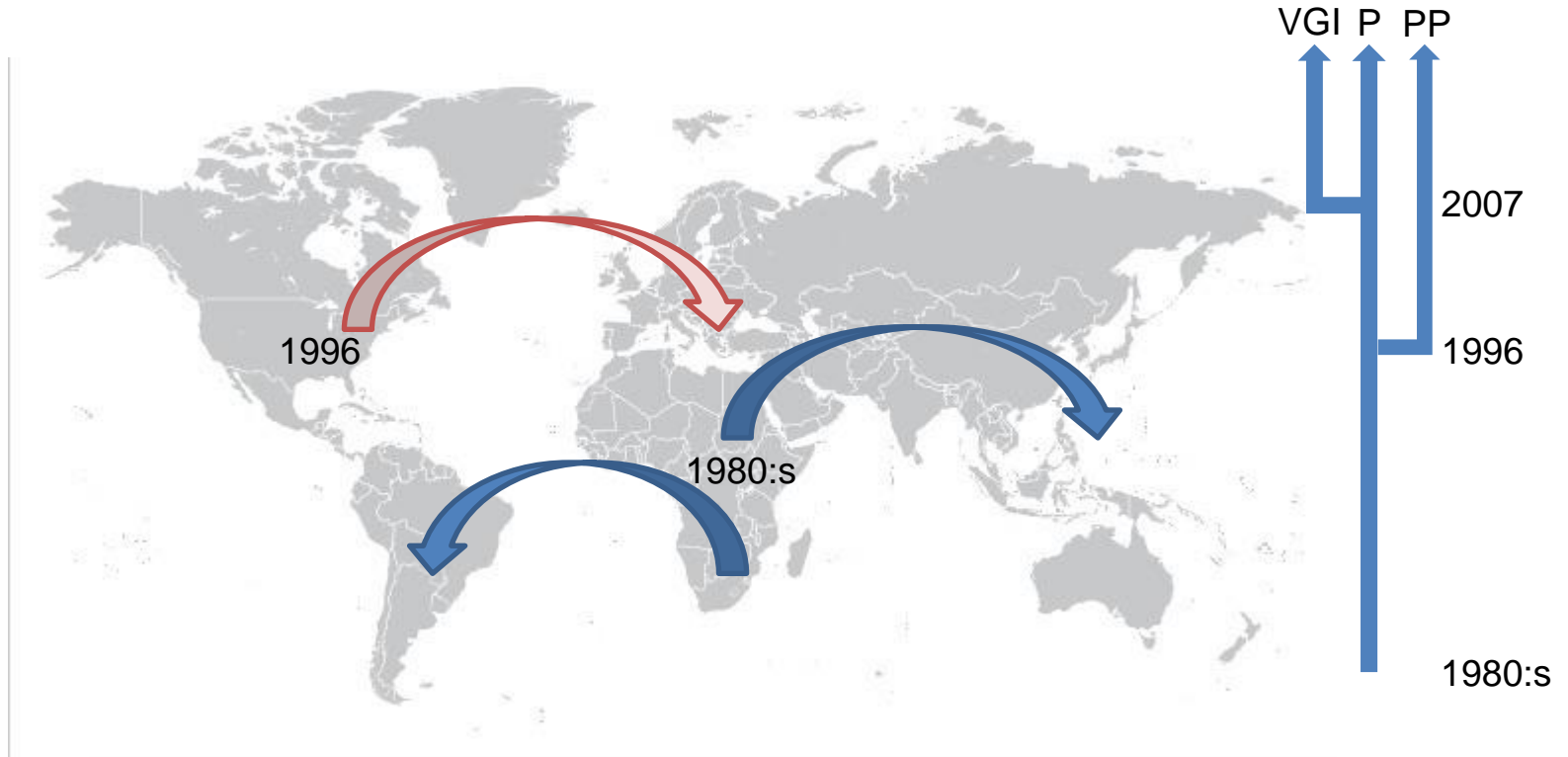
Top down, sponsor makes the decisions, data contribution, power over...

Sponsor makes decisions, data collecting, participants need training

Partnership, concensus, data sharing

Bottom up, participants control the process, data owning, power to...

# Comparison PGIS vs. PPGIS



2. Participatory

1. Public Participation

# Comparison

Brown & Kyttä 2014

<b>PGIS</b>	<b>Method</b>	<b>PPGIS</b>
Community/Social empowerment	Emphasis	Quality of land use planning
NGOs	Sponsor	Government Planning Agencies/Academic
Bottom-up	Direction	Top-down
Developing countries	Global context	Developed countries
Rural	Place context	Urban/regional
Secondary	Data quality	Primary
Active: purposive	Sampling approach	Active: probability
Collective	Data collection	Individual
Non-digital	Mapping technology	Digital
Data providers	Data ownership	Sponsor

# Comparison

One goal: Mapping reindeer husbandry land use

Two strategies

★ RHP

★ IRENMARK

Reindeer herding communities

Sami Parliament

RenGIS

ArcGIS



Different results























# RenGIS - IRENMARK

- RenGIS - RHP
- Mapping reindeer husbandry land use
- Sami Parliament/Forest Agency
- Government funding
- 1998-
- Reindeer herding vs. Forestry
- Consultations/Land use planning
- IRENMARK/Ren2000
- Mapping reindeer husbandry land use
- Sami Parliament/Government
- Government funding
- 2002-
- Riksintresse/National interest
- Land use planning

# Comparison

 RenGIS (RHP)  
 IRENMARK

PGIS	Method	PPGIS
Community/Social empowerment	Emphasis  	Quality of land use planning
NGOs	 Sponsor 	Government Planning Agencies/Academic
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# Comparison

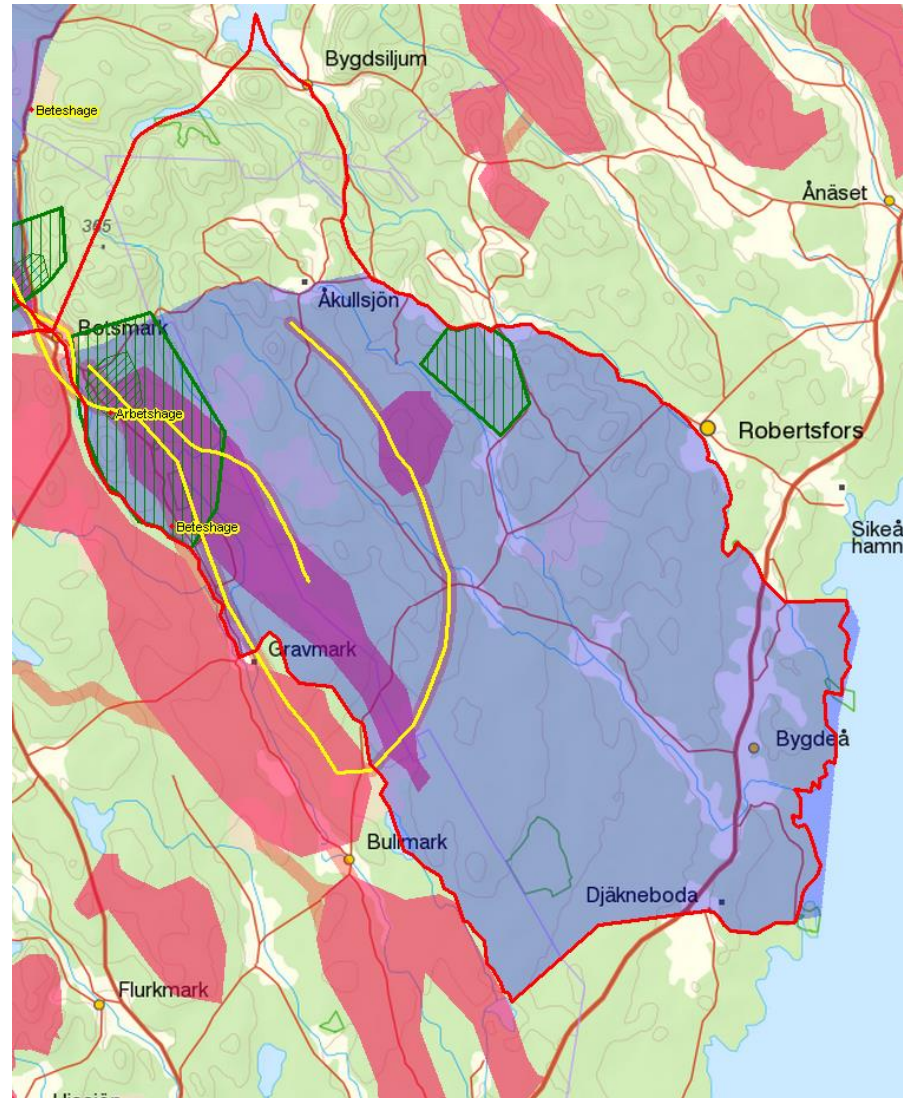
## IRENMARK

National interest  
Winter grazing  
Reindeer preferred area  
Resting area, grazing  
Migration routs

## Consultative

Top down, sponsor makes the decisions, data contribution, power over...

## Gran RHC



# Comparison

RenGIS RHP

Winter grazing

Grazing area

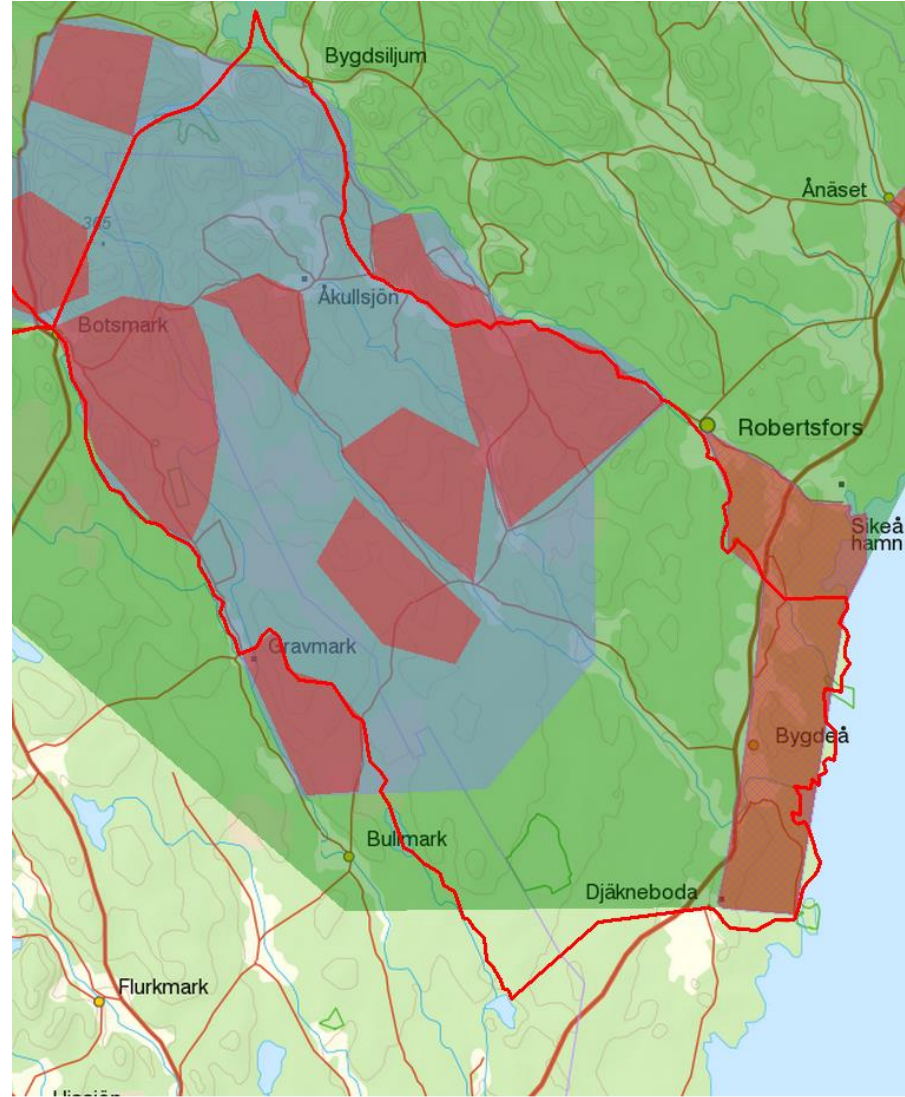
Core area

Key area

Functional

Sponsor makes decisions,  
data collecting,  
participants need training

Gran RHC





# Comparison

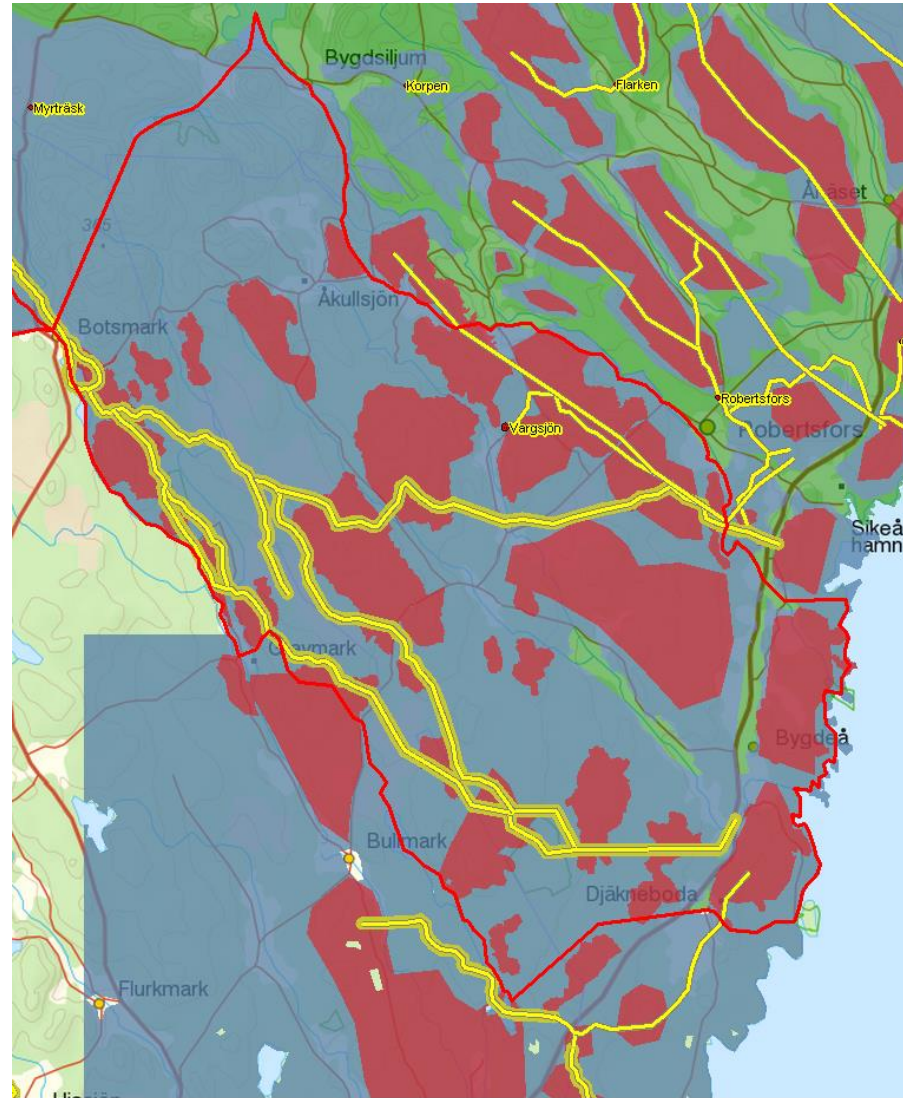
RenGIS BuSK-RBP

Winter grazing  
Grazing area  
Core area  
Key area  
Migration routs

Collaborative

Partnership, consensus,  
data sharing

Gran RHC



# Strategy

- What is mapped?
- Who does the mapping?
- Where is mapping done?
- Reason for mapping?
- How is mapping done?
- Who owns the mapped data?
- Who needs the mapped data?
  
- PGIS or PPGIS?

# Conclusion

- Participation
- PGIS/PPGIS – two different strategies
- Different strategies – Different maps
- Careful planning before mapping

# Thank you!



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FØROYA



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METSÄHALLITUS



UNIVERSITY OF ICELAND  
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FACULTY OF LIFE AND ENVIRONMENTAL SCIENCES



NATURAL RESOURCES  
INSTITUTE FINLAND



UiT / THE ARCTIC UNIVERSITY  
OF NORWAY



UNIVERSITY OF LAPLAND  
LAPIN YLIOPISTO



Northern Periphery and  
Arctic Programme  
2014-2020



EUROPEAN UNION  
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