

# Geospatial Solutions

## Research Questions

- How to synthesize multi-thematic and multi-resolution satellite data into meaningful applications (rapid change detection and assessment) in regional programmes
- How to integrate geospatial framework and modelling environment into Transboundary Landscapes and River Basins Regional Programmes
- How to capitalize on emerging technologies such as crowd sourcing, mobile mapping, social networks, and spatial visualization to leverage geospatial information services for better decision support for mountain communities

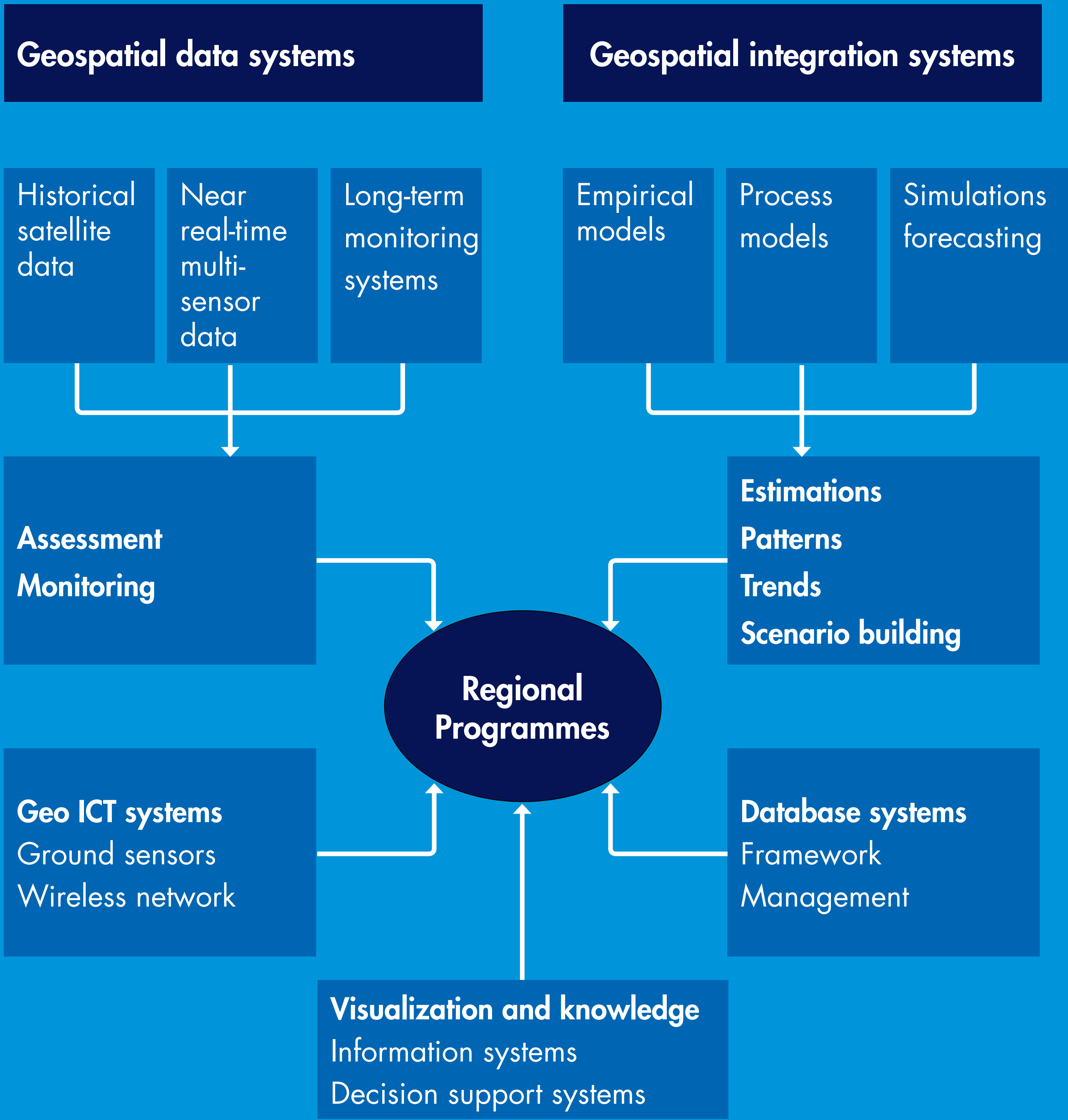
Tree crown coverage as delineated from very high resolution satellite data



## Contributions to Regional Programmes

Adaptation to Change		Vulnerability assessment Food security analysis Agent-based modelling Geospatial migration models
Transboundary Landscapes		Long-term ecological monitoring Species distribution models Ecosystem services evaluation
River Basins		Multi-scale characterization Crop-water modelling Disaster risk assessment
Cryosphere and Atmosphere		Glacier monitoring and dynamics Snow monitoring and runoff Air quality monitoring
Mountain Environment Regional Information System		Information services Decision support systems Geo-ICT tools
Himalayan University Consortium		Capacity building Academic and research interface

## Operational Framework and Interface



## Research Challenges

