



Heureka programme

- an overview

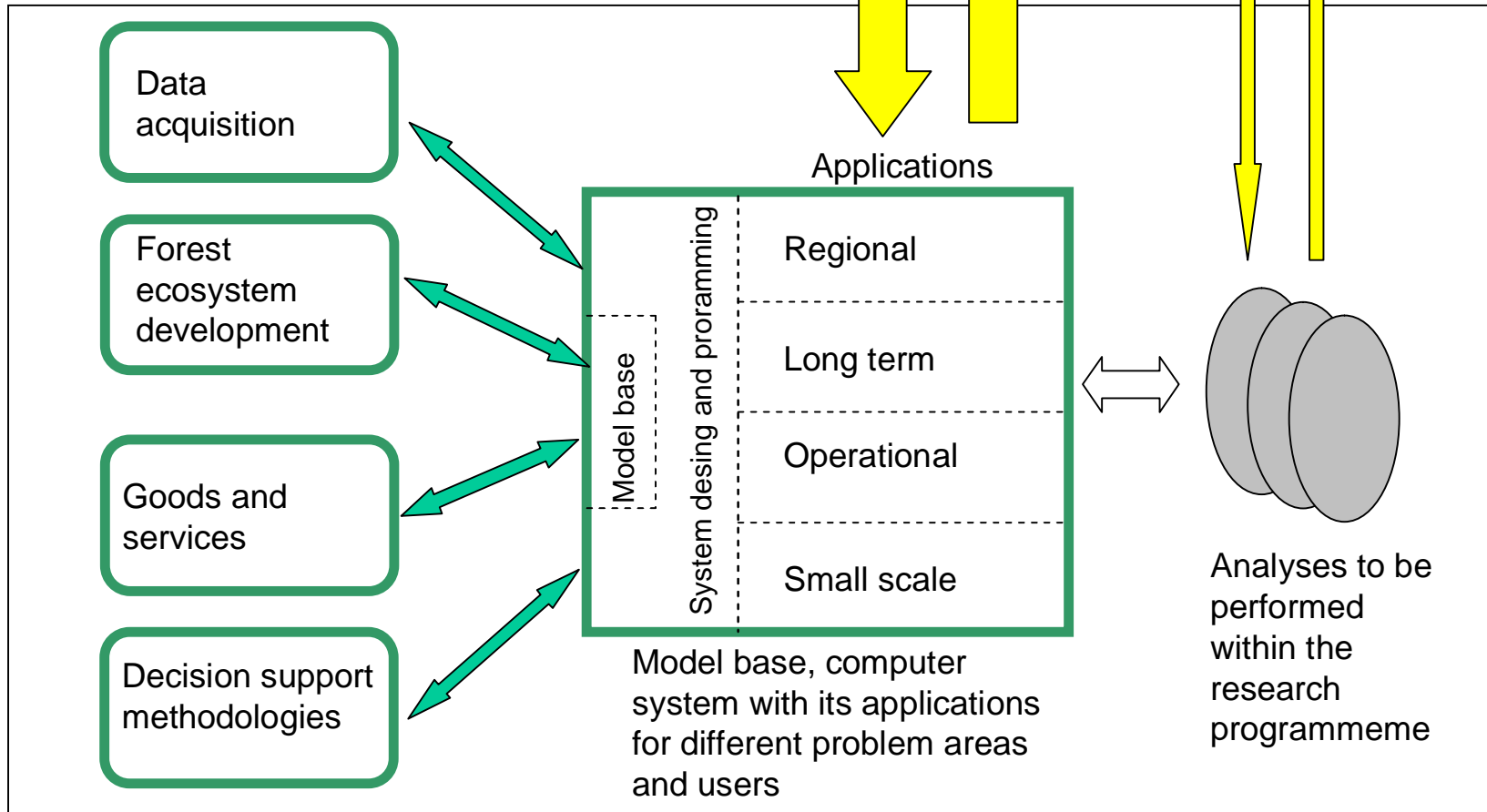
SIMO Workshop 8.3 2006-03-08

Torgny Lind



Users of applications

The Heureka Research programme





The Core of the programme – Single Projects

Subprogram 1: Forest Ecosystem Development

Project 1.1: Tree layer development

Project 1.2: Risk and uncertainty in predictions (potential)

Project 1.3: Development of non-tree vegetation (potential)

Project 1.4: Impact of climate change

Project 1.5: Soil biogeochemical modeling





Subprogramme 2 - Forest Goods And Services

Project 2.1: Biodiversity

Project 2.2: Timber

Project 2.3: Social values





Sub-Programme 3 – Data Acquisition

Project 3.1: Data acquisition for regional planning and
landscape scenarios

Project 3.2: Data acquisition for forest management planning

Project 3.3: System for objective field survey for Long term
planning

Project 3.4: Data acquisition for operational planning





Sub-Programme 4 – Decision Support Methodologies

Project 4.1: Planning and optimisation

Project 4.2: Decision-making under risk (potential)

Project 4.3: Forest owner behaviour and dynamics





Sub-Programme 5 – Applications And System Design

Project 5.1: Application for national and regional analysis

Project 5.2: Application for long term planning

Project 5.3: Application for operational planning

Project 5.4: Application for planning of small-scale forestry

Project 5.5: System design and programming

Project 5.6: Education and training





Activities

- System development (implementation of models, GUI and tests)
- Case studies in collaboration with users
- Workshops – Educational and international
- Conferences, newsletters and scientific articles





Achievements in phase one

- A multi-disciplinary research team established
- Prototypes of applications
- Results from subject oriented projects:
 - Growth models
 - Habitat models
 - Biomass functions
 - Wood quality functions
 - Dead wood decay models





Achievements in phase one

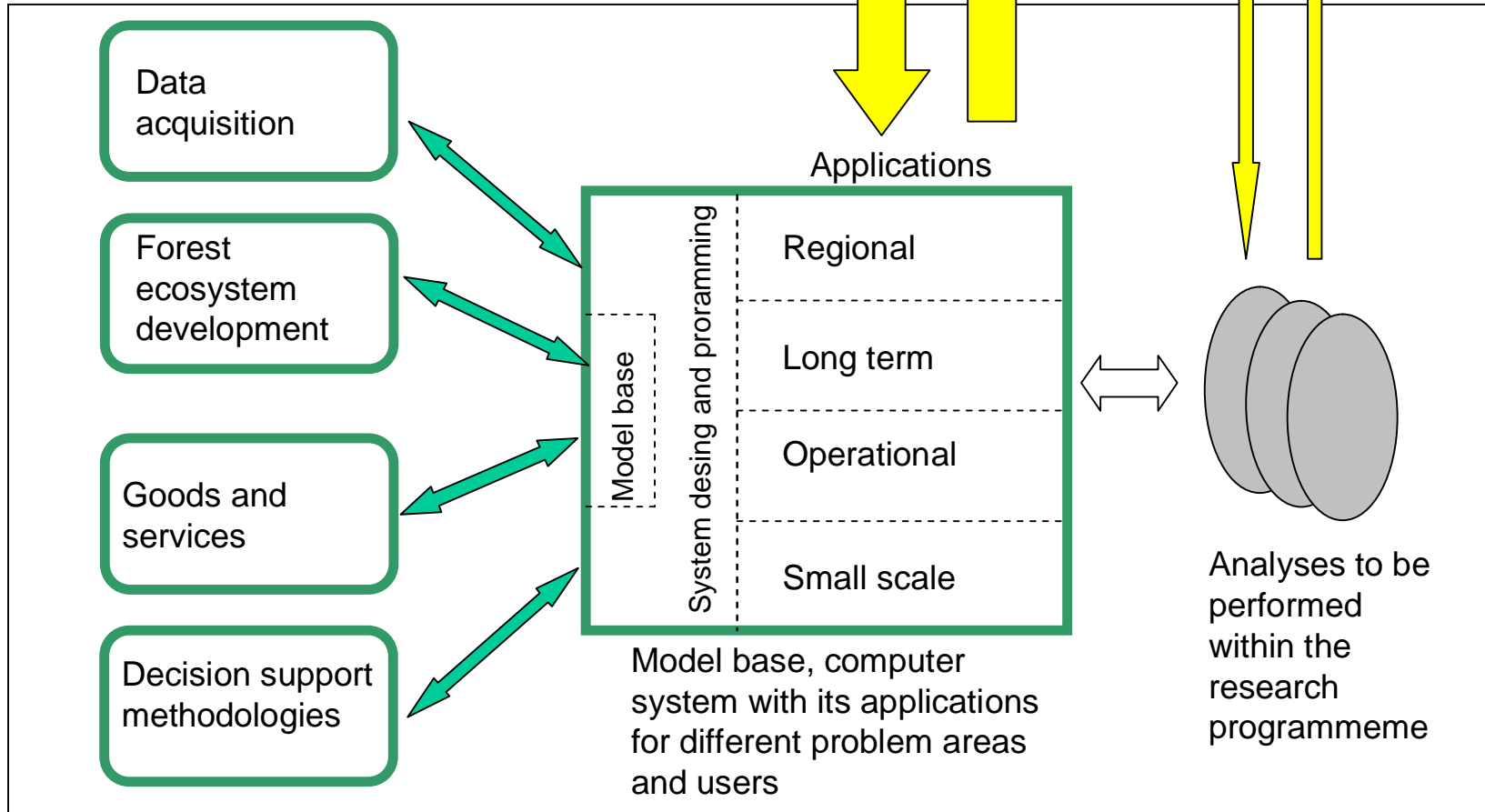
- Results from subject oriented projects (cont.):
 - Recreation models
 - Models to mimic actions taken of NIPF owners
 - Visualisation of forest landscapes
 - Remote sensing:
 - Tree size distribution based on laser scanning
 - Detection of individual trees





The Heureka Research programme

Users of applications





Questions?

<http://heureka.slu.se/>





Recreation index

Table 1. Influence on recreation index (RI)				
Variable	Enhet	Clear-felled areas and forest < 2m	Young forest > 2 m Before first thinning	Forest after first thinning
Constant		0.3	0.568	0.569
Uneven aged stands	(0/1)	+	+	+
Dead trees	(0-3)	-	-	-
Snags	(0-3)	-	-	-
Logging residues	(0-3)	-	-	-
Share of pine	(0-1)		-	-
Share of spruce	(0-1)		-	-
Share of Broad leaved trees	(0-1)			+
Stems, 5-20 cm	(stems/ha)		-	-
Stems, 20-48 cm	(stems/ha)			+
Stems, 48+ cm	(stems/ha)			+
Soil damages	(0-3)			-

$$RI \text{ (Landscape level)} = RI_{\text{stand}} * \text{Location} (0 - 1)$$



Example of RI

