Farming systems analysis in Africa RISING

Jeroen Groot

Bernard Vanlauwe

Lotte Klapwijk

Contents

- Objectives and rationale
- Steps in the project, timeline
- Site selection, sample size
- Project organization, teams, roles
- Training sessions

Objectives

- To find options for sustainable intensification and innovation at the farm level

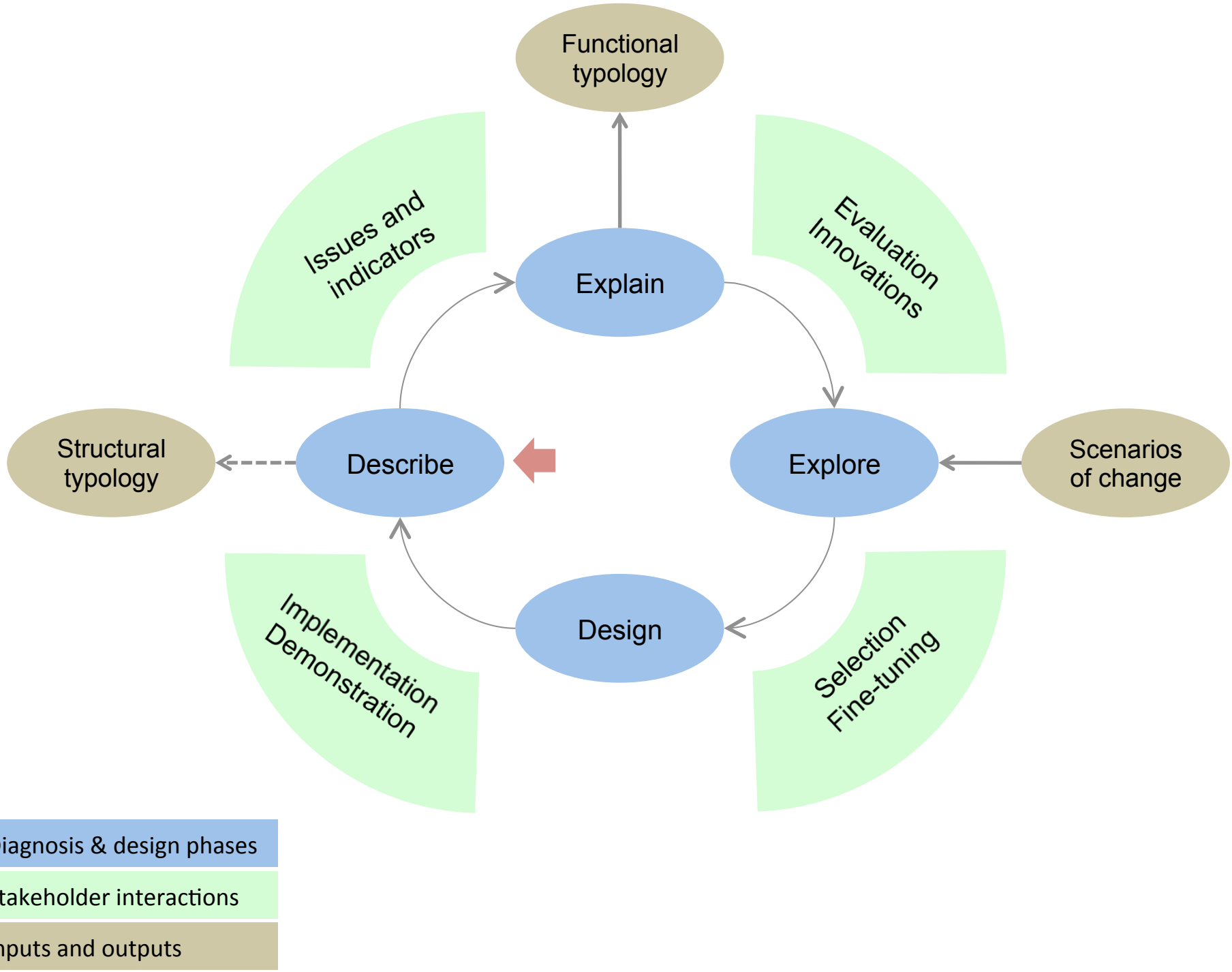
  - Diagnose current whole-farm performance
  - Explore tradeoffs and synergies among ‘services’, identifying farm performance gaps
  - Interactive re-design of the farm, to close gaps
  - Inclusive project and stakeholder approach

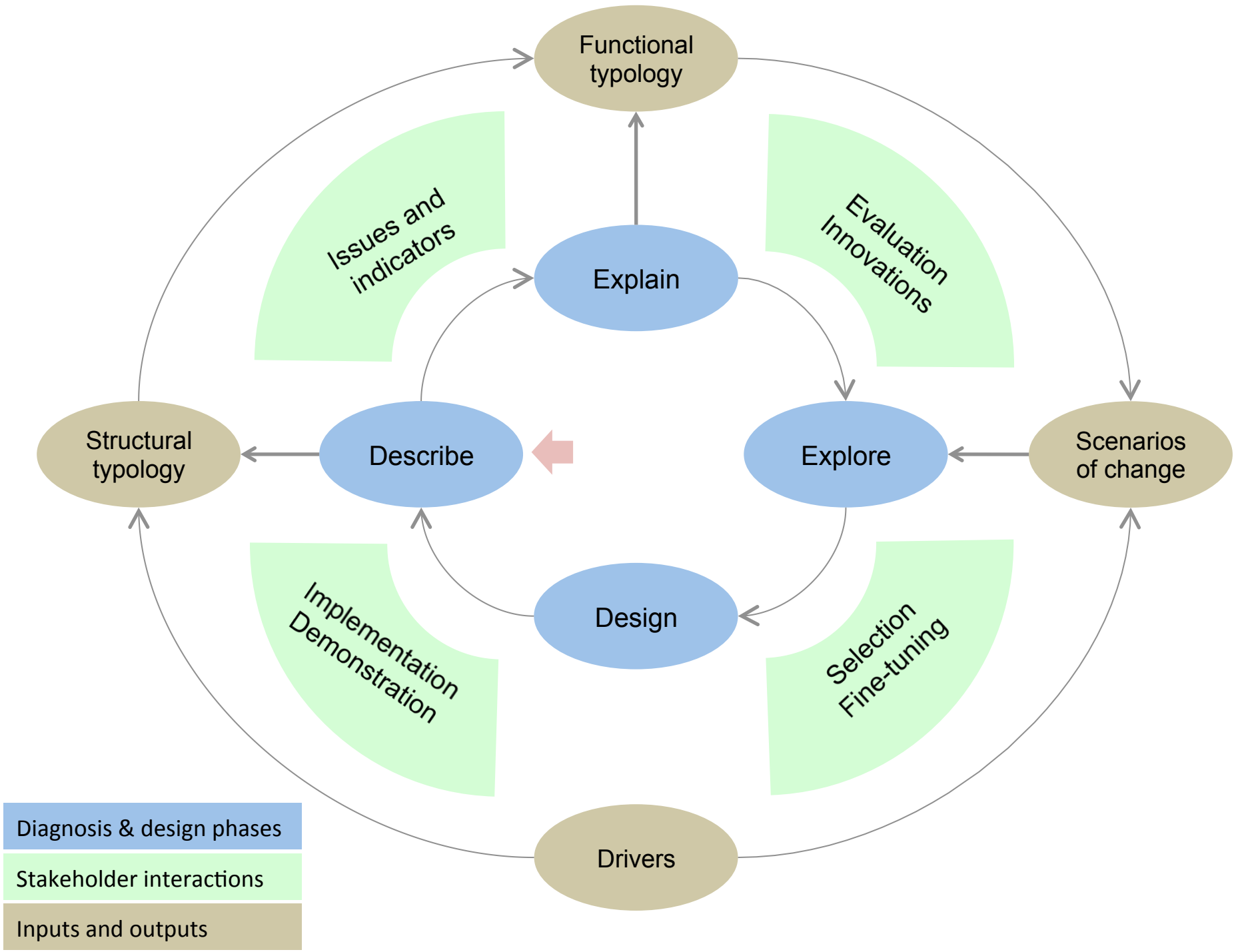
Rationale (1)

- Based on farm surveys, characterizations and previous engagements with farmers …
- … model-supported diagnosis and exploration of whole-farm options for sustainable intensification …
- … will inform interactive adaptation and learning cycles conducted with farmers and other stakeholders.

Rationale (2)

- A farm-level approach allows to embed proposed and tested innovations
- Exploration, presentation and discussion of sets of options is needed to:
  - Show tradeoffs and synergies among services
  - Support adoption processes by providing choice
  - Avoid lock-in onto undesirable development paths


Functional typology
Issues and indicators
Explain
Evaluation Innovations
Structural typology
Describe
Explore
Scenarios of change
Implementation Demonstration
Design
Selection Fine-tuning
Diagnosis & design phases
Stakeholder interactions
Inputs and outputs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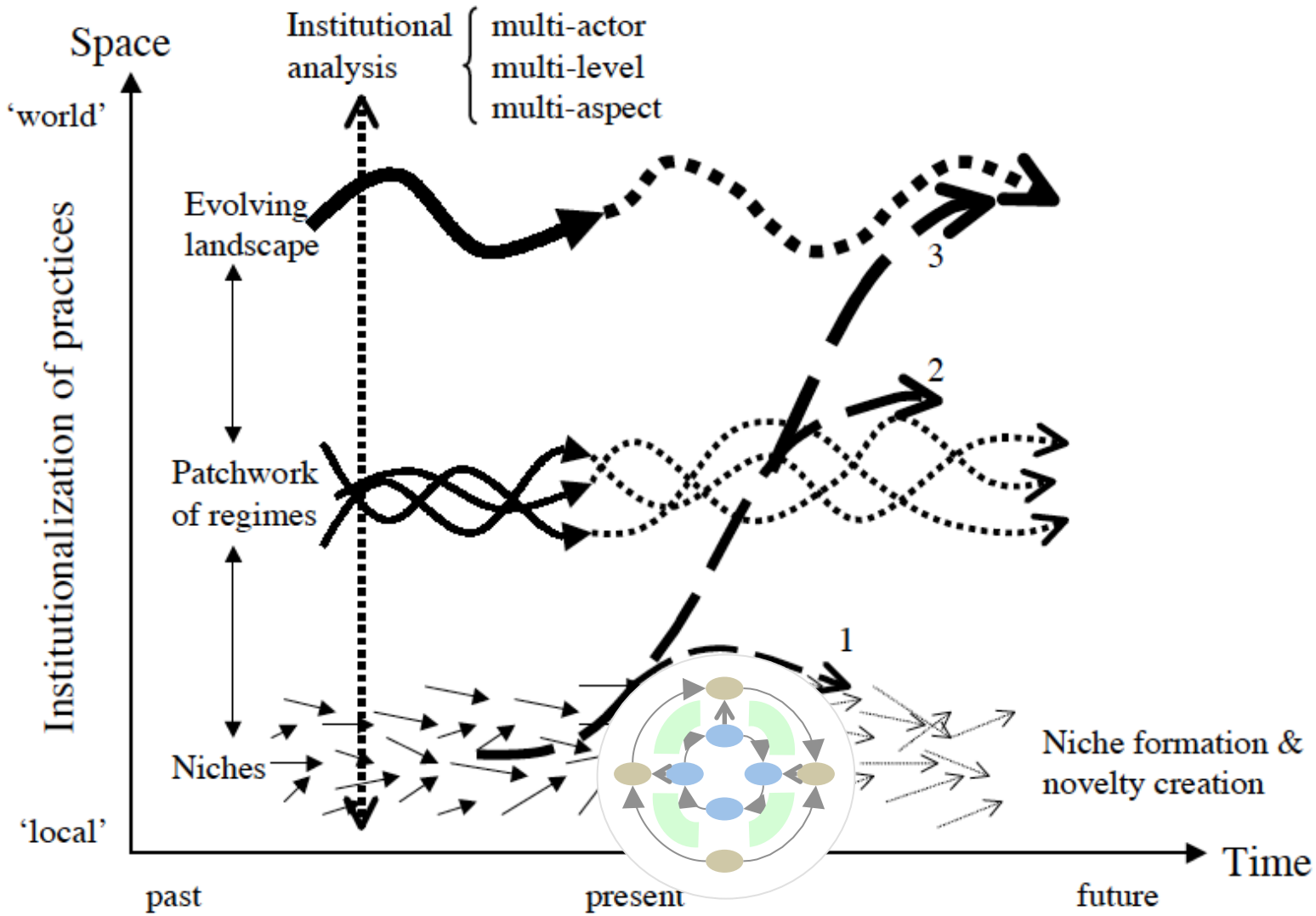
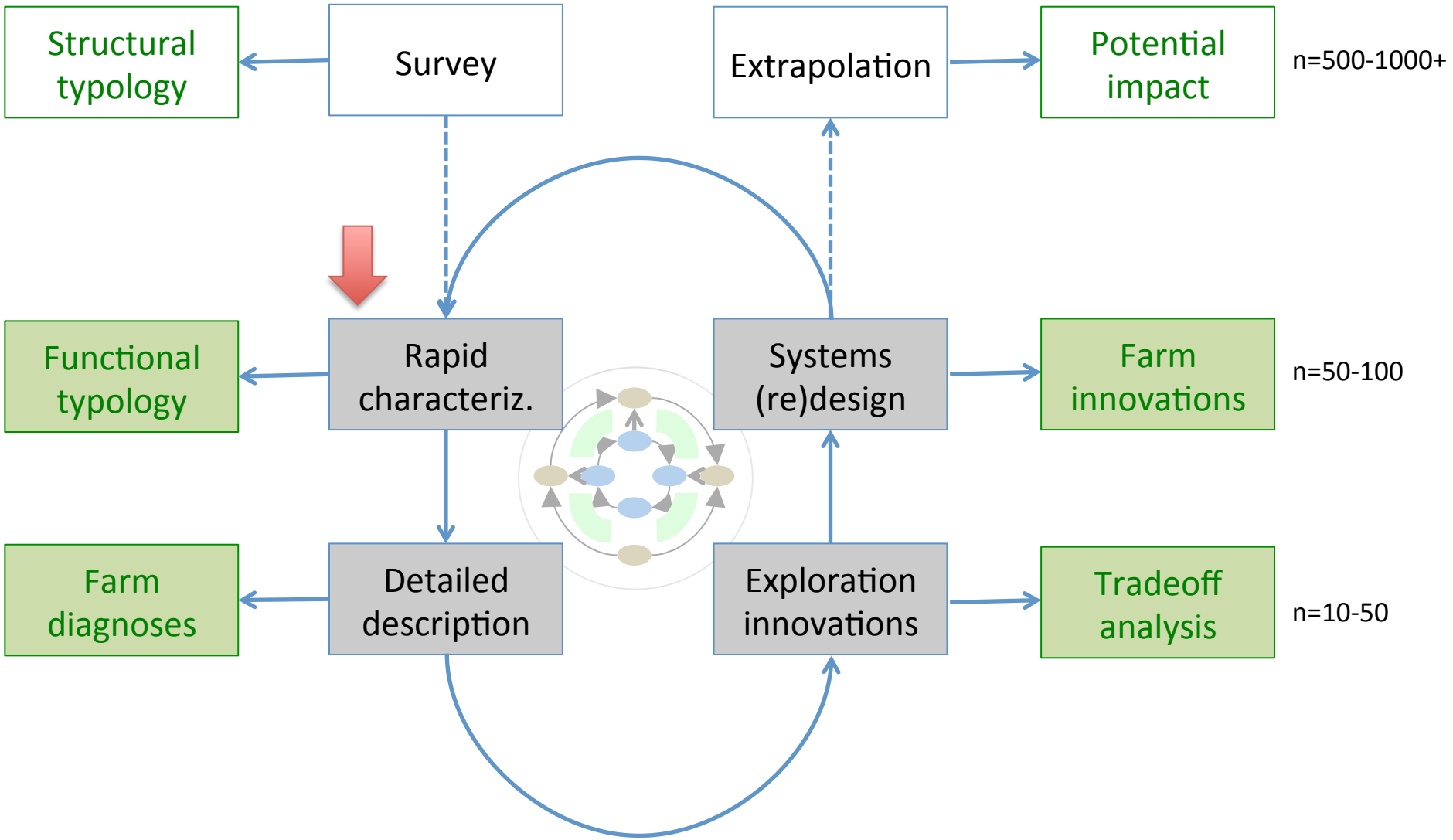
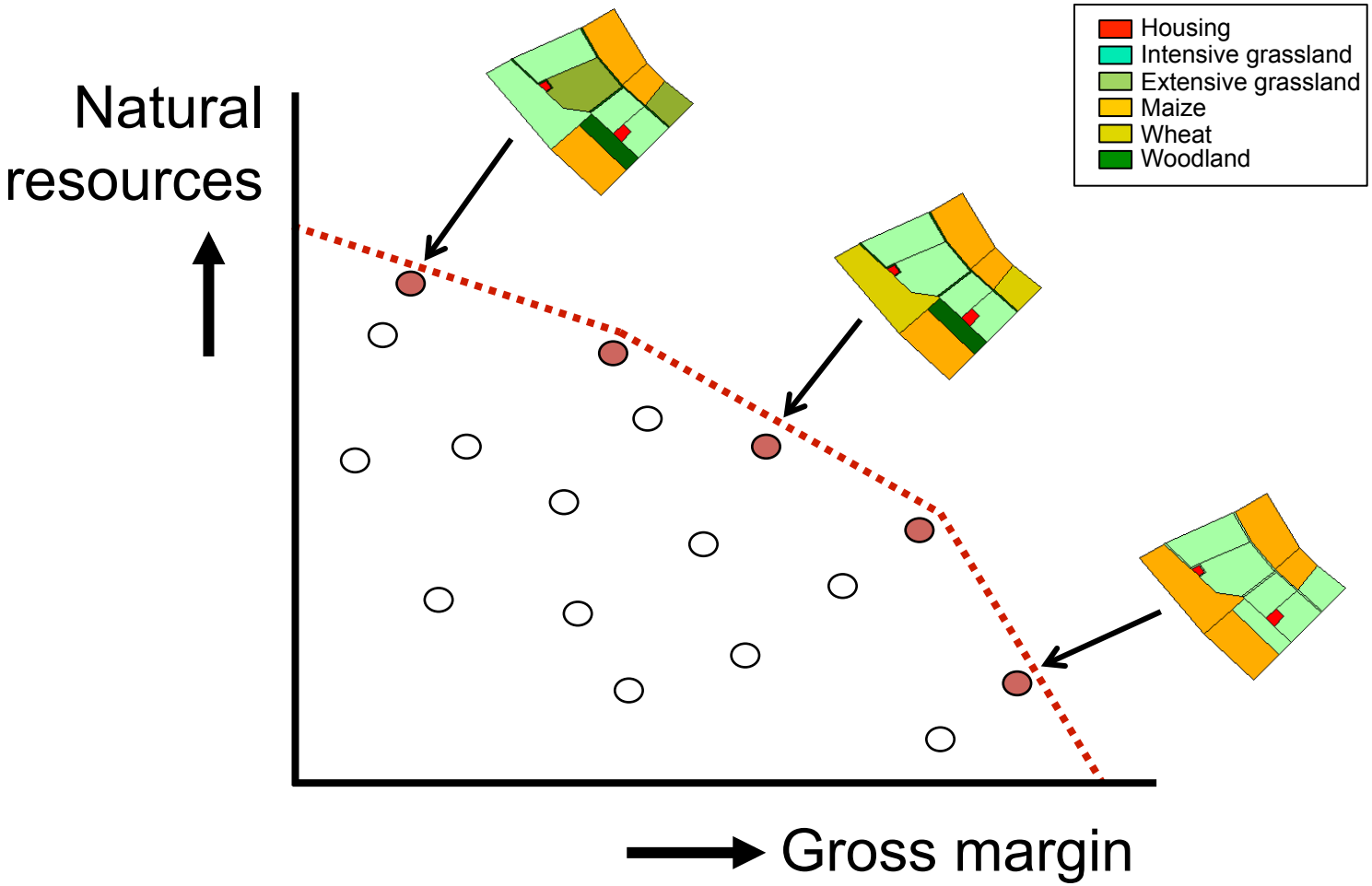
Stakeholder interactions
Inputs and outputs

Niches, regimes, transitions

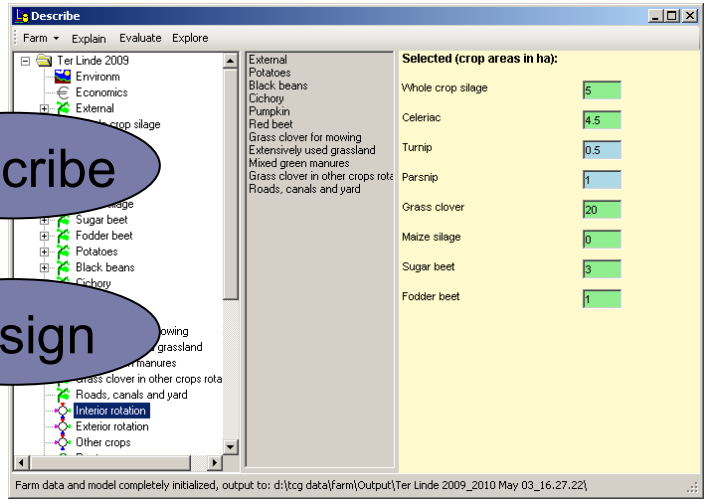



Structural typology
Survey
Extrapolation
Potential impact
n=500-1000+
Functional typology
Rapid characteriz.
Systems (re)design
Farm innovations
n=50-100
Farm diagnoses
Detailed description
Exploration innovations
Tradeoff analysis
n=10-50

Exploration of innovations, tradeoffs

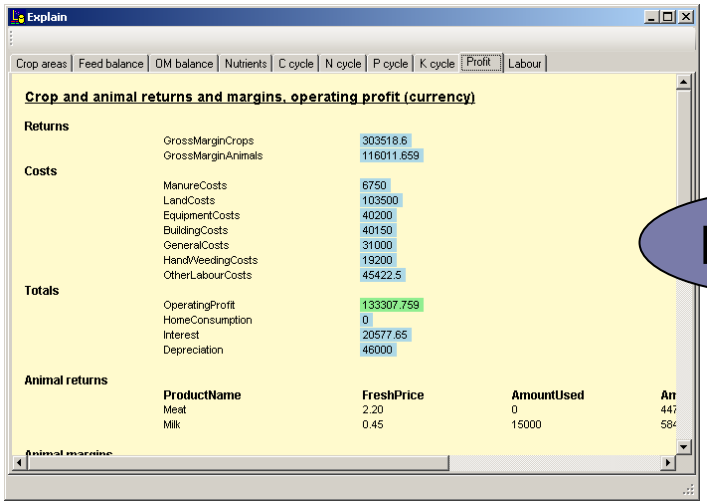


Farm DESIGN

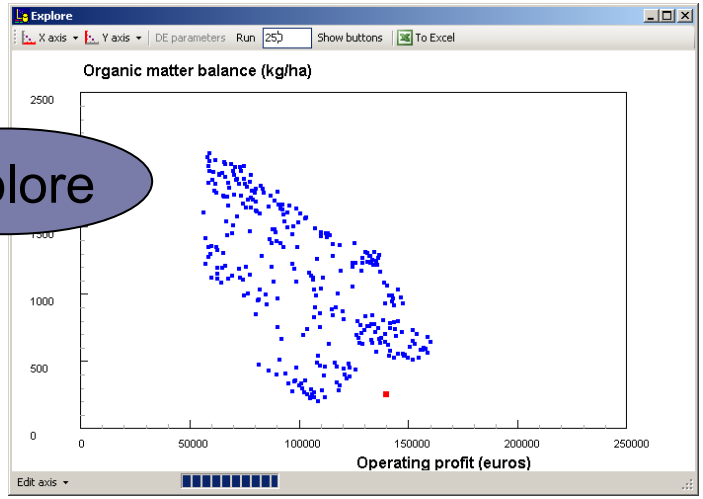


Describe

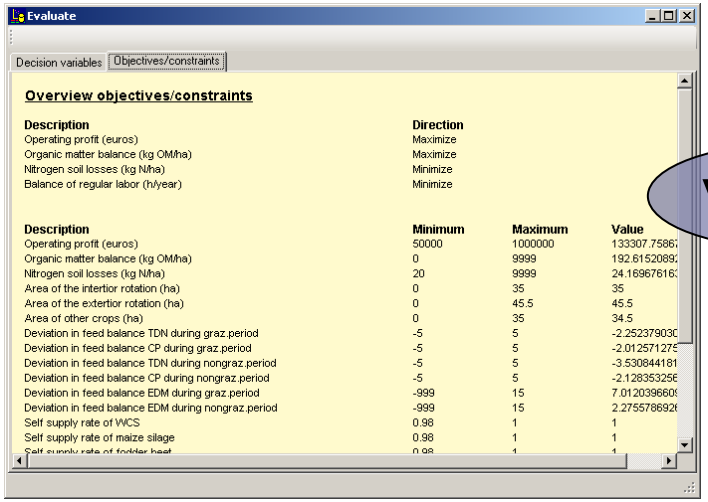
Design



Explain

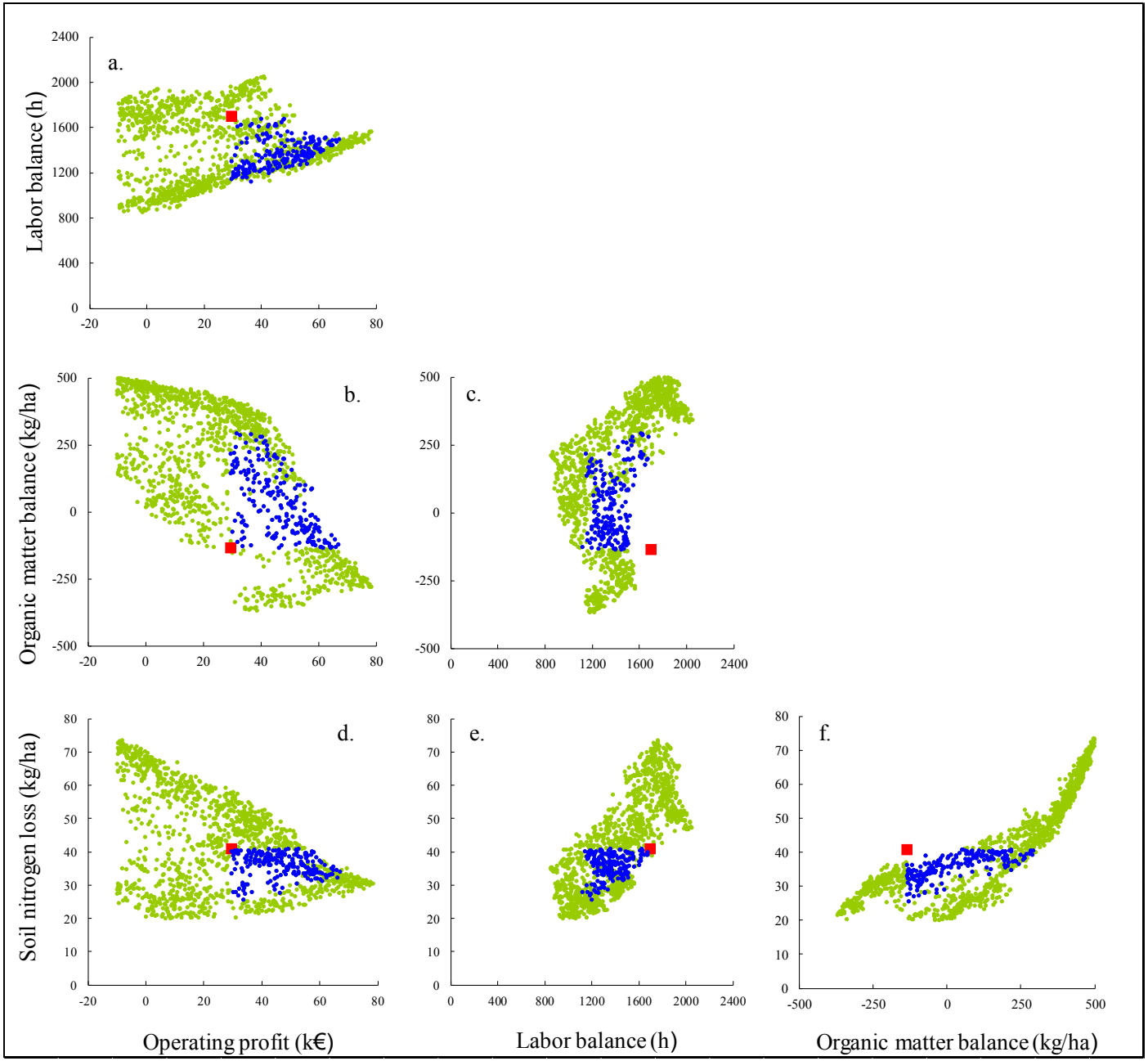


Explore



Validate

Groot et al., 2012. Agricultural Systems.



Groot et al., 2012. Agricultural Systems.

Site selection, sample size

- Tanzania, Malawi
  - Next growing season: Nov. 2013
  - Results by: Sep. 2013
- Ghana, Mali
  - Next growing season: Apr./May 2014
  - Results by: Dec. 2013

- Samples (dependent on capacity)
  - Rapid characterization 50-100
  - Detailed diagnosis 10-50

Milestones, products per stage

- Rapid characterization → functional typology
- Detailed description → diagnosis per farm
- Exploration → T-S and promising options, discussions with farmers a.o.
- Redesign → implementation and demo plan for farm innovations

Timeline

	What?	Who?	Weeks	01-Apr	08-Apr	15-Apr	22-Apr	29-Apr	06-May	13-May	20-May	27-Ma
I.2 Site selection												
I.3 Baseline survey												
II.2 Rapid characterization	training of ST	SP+ST	1	SP+ST								
	training of NT	ST+NT	1		ST+NT							
	data collection	NT	5			NT						
	data entry	NT	3					NT				
	data check	SP	2							SP		
	data analysis	ST	2							ST		
II.3 Detailed description	data collection	NT	5									NT
	data entry	NT	3									
	data check	SP	1									
	data analysis	ST	1									
II.4 Exploration system innov.	training	SP+ST	2			SP+ST						
	collect data (secondar	ST	3					ST				
	model runs	ST	4									
	output analysis	ST+SP	2									
	extract options	ST+NT	2									
II.5 Selection of options redesign	present options	ST+NT	3									

Malawi & Tanzania
Ghana & Mali

NT=national team
ST=scientific team

Timeline

	What?	Who?	Weeks	y	03-Jun	10-Jun	17-Jun	24-Jun	01-Jul	08-Jul	15-Jul	22-Jul	29-Ju
I.2 Site selection													
I.3 Baseline survey													
II.2 Rapid characterization	training of ST	SP+ST	1						ST+NT				
	training of NT	ST+NT	1							NT			
	data collection	NT	5									NT	
	data entry	NT	3										
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	data entry	NT	3			NT							
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	data analysis	ST	1					ST					
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II.5 Selection of options redesign	present options	ST+NT	3										

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Timeline

	What?	Who?	Weeks	29-Jul	05-Aug	12-Aug	19-Aug	26-Aug	02-Sep	09-Sep	16-Sep	23-Sep
I.2 Site selection												
I.3 Baseline survey												
II.2 Rapid characterization	training of ST	SP+ST	1									
	training of NT	ST+NT	1									
	data collection	NT	5									
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II.5 Selection of options redesign	present options	ST+NT	3								ST+NT	

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Timeline

	What?	Who?	Weeks	30-Sep	07-Oct	14-Oct	21-Oct	28-Oct	04-Nov	11-Nov	18-Nov	25-Nov
I.2 Site selection												
I.3 Baseline survey												
II.2 Rapid characterization	training of ST	SP+ST	1									
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II.5 Selection of options redesign	present options	ST+NT	3									

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Teams and roles

- National teams (NT's)
  - Local recruitment (Number? Capacities?)
    - Data collection, entry, checks
    - Process with farmers
- Scientific team (ST)
  - 2 PhD students, 1 per region
  - 1 post doc researcher
    - Instruct and train NT's
    - Data analysis typologies
    - Perform modeling (diagnosis and exploration)
- Sci. supervision (SP)
  - Wageningen team
    - Support trainings and all activities of ST

Training sessions

- Data collection on-farm (ST → NT)
- Characteriz., description (SP → ST)
- Exploration and redesign (SP → ST)