



RC2: Landscapes

Local workshops and GIS Platform for N modelling

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Presentation content

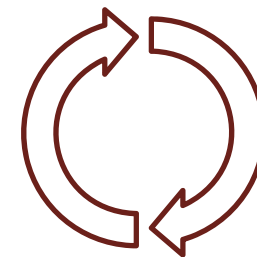
- **RC 2 Landscapes** – Overview
- **Local workshops** – Round 1
 - **Scenario** results
 - **Process** results
- **Local workshops** – Round 2
- **GIS Platform** – Development
- **RC2 Landscapes** – Timeline and future activities



RC 2 Landscapes –activities *(extract)*

2.1 Local N Budgets: In collaboration with local municipalities and farmers' unions detailed N budgets are constructed in six study areas using inputs from RC1 and more detailed local data.

2.2 Local scenarios: for the case landscapes are formulated where N reduction effects of various changes in landscape, agricultural practice and technical installations are modelled. The scenarios are formulated with stakeholders and in an iterative process ensured by a sequence of scenario-building followed by local workshops.



2.3 External effects: In the last part of the RC we will evaluate the extent of other externalities brought about by the various N mitigation efforts on selected ecosystem services (wildlife habitats, flood control, cultural heritage, recreation etc).



Local workshops – round 1

- **Purpose**: to get **local input** on future **N** management at farm and **landscape** levels and based on that **formulate scenarios**
- **Setup**:
 - Planned with **municipalities** and **agricultural advisors**
 - **Future** perspective – with a broad focus
 - “Total” **experience** (eyes, feet, brain, stomach, heart)
 - Local **stakeholders** (farmers, organisations, authorities, village inhabitants)
 - **Afternoon/evening** event
- **Execution** (programme):
 - 16:00 – 18:00 **Excursion** in study area
 - 18:00 – 19:00 **Dinner** (at local inn, community hall, etc.)
 - 19:00 – 19:30 Workshop **introduction**
 - 19:30 – 20:15 **Group work** on overall local **development**
 - 20:15 – 20:30 Coffee **break**
 - 20:30 – 21:15 **Group work** on concrete local **initiatives**
 - 21:15 – 21:30 **Summing up** and workshop **closing**



Local workshops – study areas



Gjøøl (2741 ha)
15 deltagere

Aalborg (7641 ha)
45 deltagere

Hagens Mølle (2761 ha)
30 deltagere

Lammefjord (2897 ha)
20 deltagere

Varde (6282 ha)
25 deltagere

Tissø (5256 ha)
25 deltagere

Local workshops – results (scenarios)

- **General** vs. study area **specific** scenario:

Solution scenarios (7):

1. Biogas
2. Biorefinery
3. New Dairy farming
4. Spatially differentiated regulation
5. Changed global consumption
6. Changed local consumption
7. Expanded organic farming

Aalborg scenarios

Gjøl scenarios (e.g.):

1. Mussels farming
2. Land zonation
3. Large wetland
4. ...

Varde scenarios

Hagens mølle scenarios

Lammefjord scenarios

Tissø scenarios



Local workshops – scenario descriptions

- For each **scenario** a **narrative** is being produced:

Scenario	Spatially differentiated regulation
Storyline	Alternative local and diff. regulation of N use to replace the general regulation
Measures	Fertilization rate, catch crops, crop choice, land use conversion
Instruments	Crop rotation and land use (incl. wetlands), nature, perennials etc.
Characteristics	Focus on reducing N loadings to vulnerable reservoirs
Parameters	fertilization rate; crop type; land use (area units)

Local workshops – process learning points

Successes:

- **Excursions** as important starting point
- **Introductory presentations** to set the stage
- Being in **dialogue** with different stakeholders



Could have been better (not failures...):

- **Map materials** used for group work
- Creating **unique local solutions**
- Control of **time** during workshops



Process challenges:

- Most places the **environmental concerns** regarding N are not considered real by farmers (i.e. the real problem is lack of N!)
- **Models** we use are not accepted by farmers
- Involving other **stakeholders** in the workshops
- ...



Local workshops – Round 2

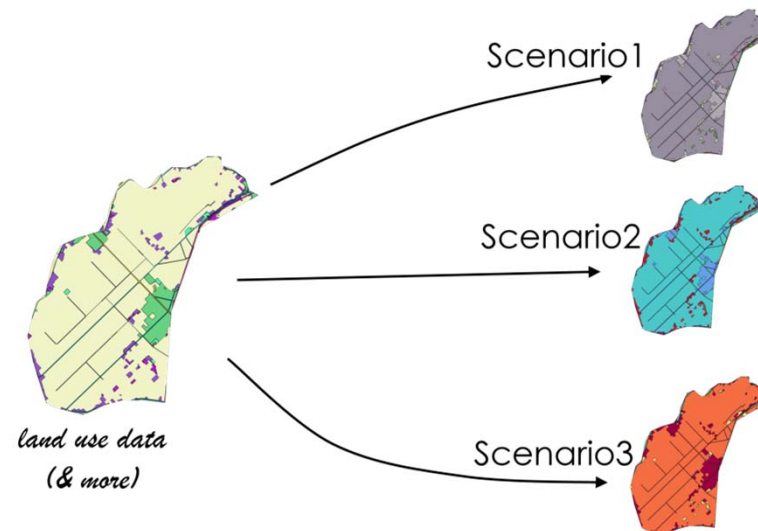
- **Purpose**: to discuss scenarios with local stakeholders with the aim of finalizing the scenario-building process
- **Setup**:
 - Summer and **Autumn 2015**
 - Will be planned with **municipalities** and agricultural **advisor**
 - The round 1 local **stakeholders** will be invited (+ more)
 - **Afternoon/evening** event
- **Execution** (tentative programme):
 - **Excursion** – follow-up
 - Scenario **examples** (expert-driven)
 - **Map-based** scenario building (stakeholder-driven)
 - **GIS Platform** exercises (stakeholder-driven, expert facilitated)
 - ...

*“The scenarios are formulated with stakeholders and in an **iterative process** ensured by a **sequence** of scenario-building followed by local workshops.”* (from project description)



GIS Platform for interactive N modelling

- **Purpose:** To be able to model and calculate N effects of agricultural land use changes with stakerholders in an interactive setting.

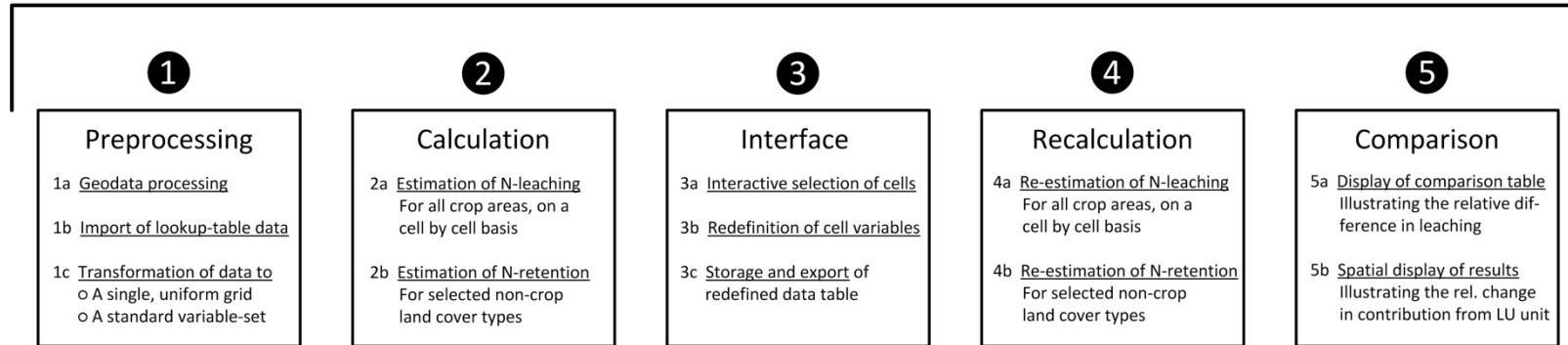


(From presentation on RC2 at dNmark annual meeting 2014)

*“The scenarios are formulated with stakeholders and in an **iterative process** ensured by a **sequence** of scenario-building followed by local workshops.” (from project description)*

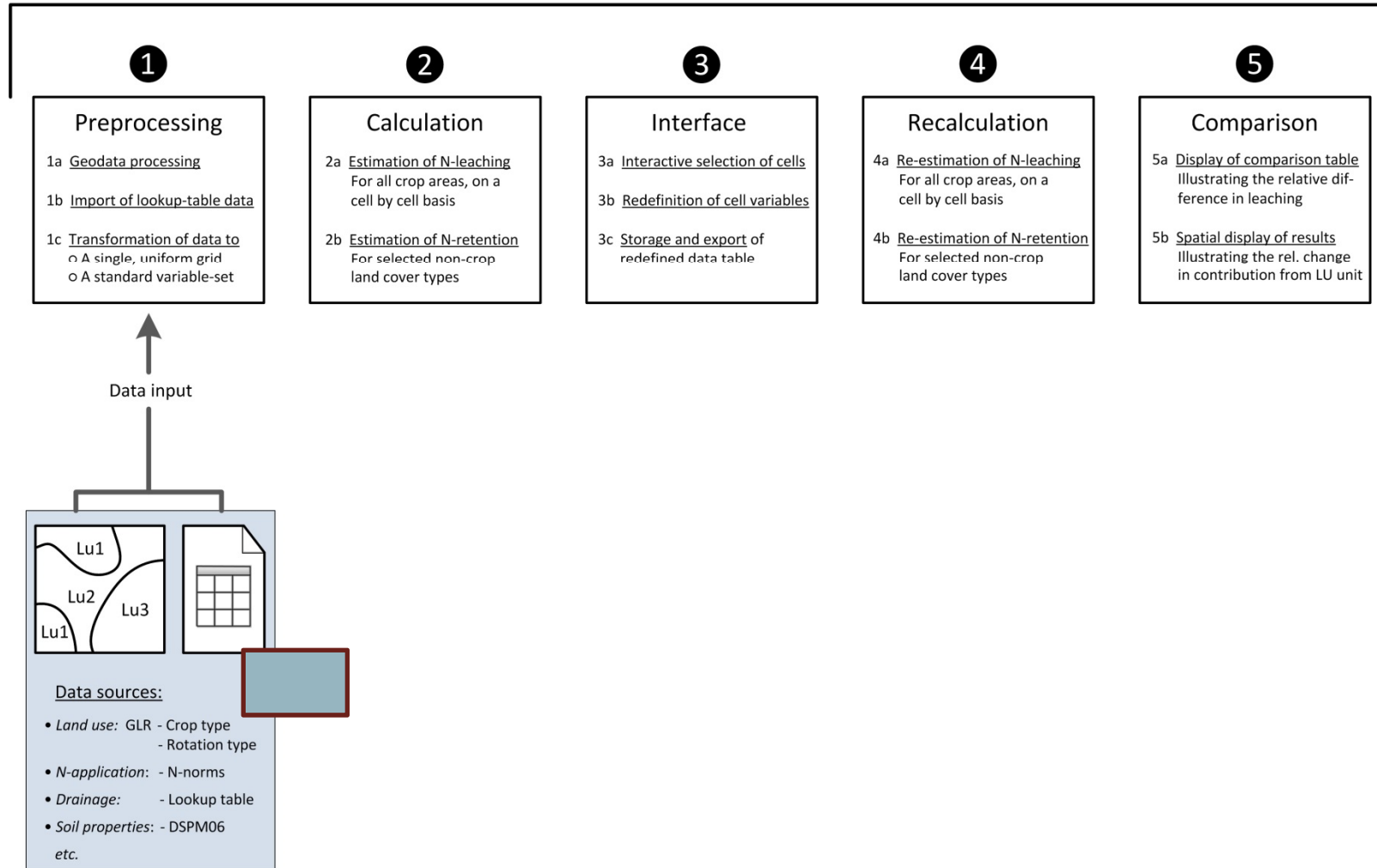
The GIS platform for interactive N modelling

The model consists of 5 individual modules:



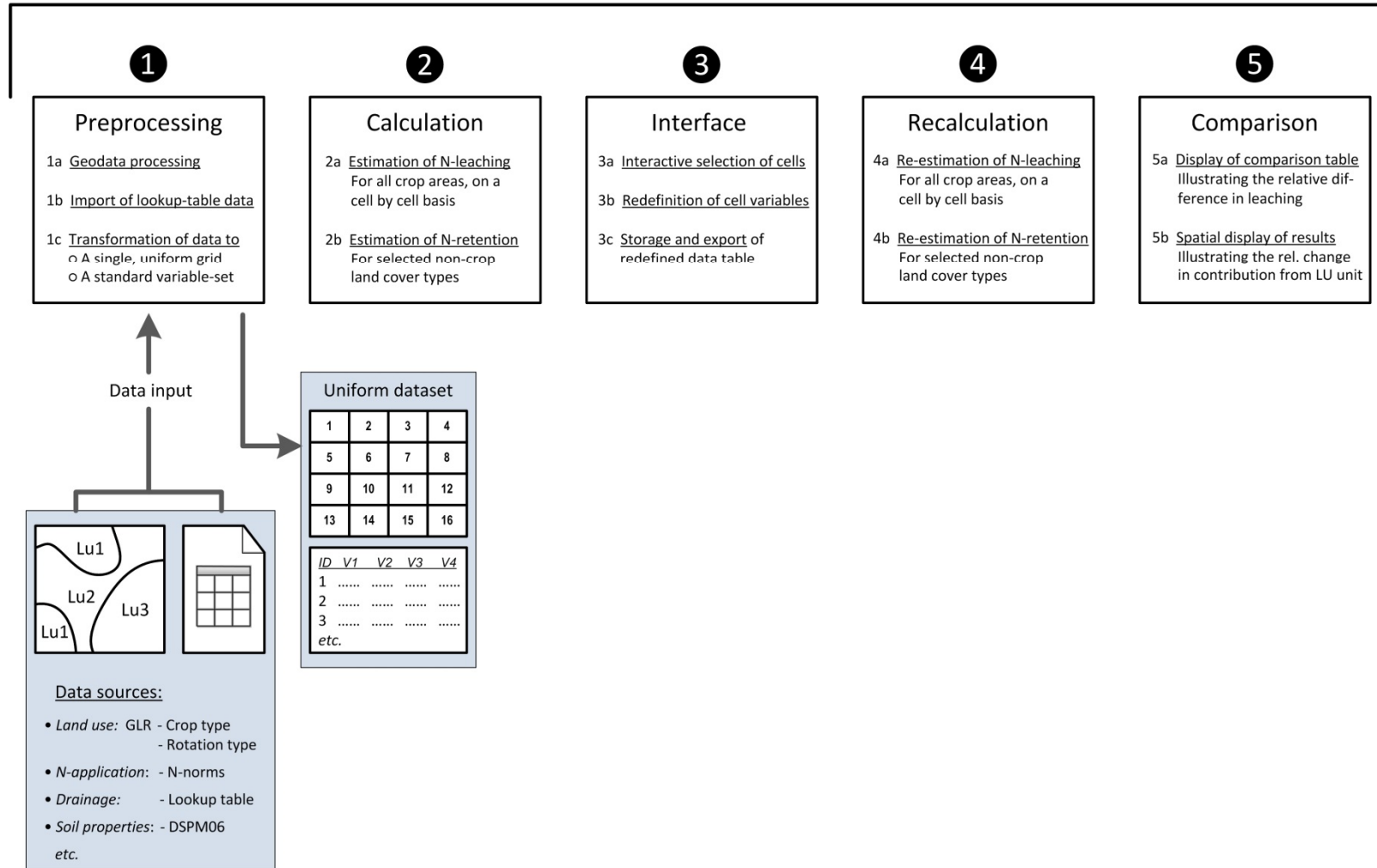
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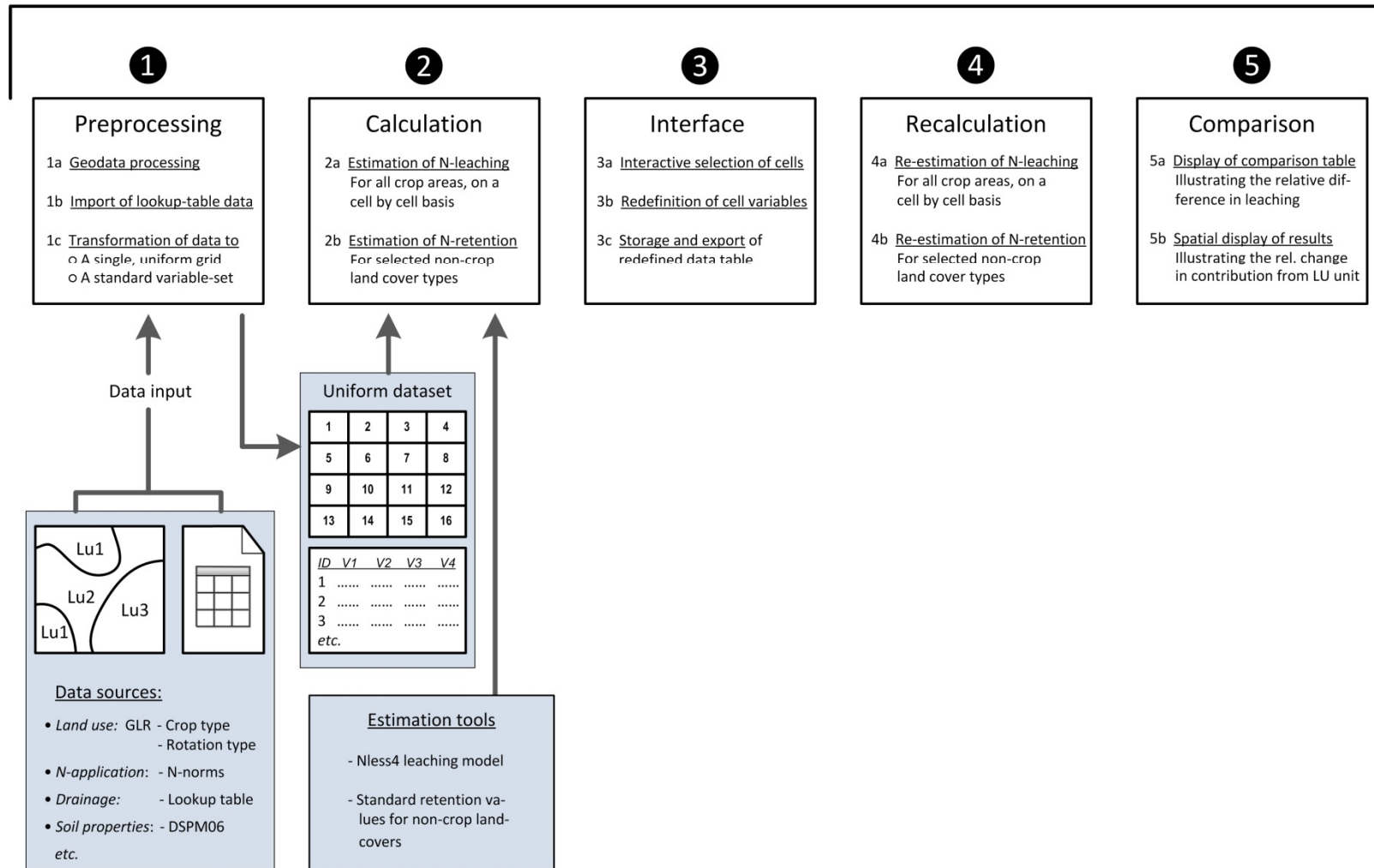
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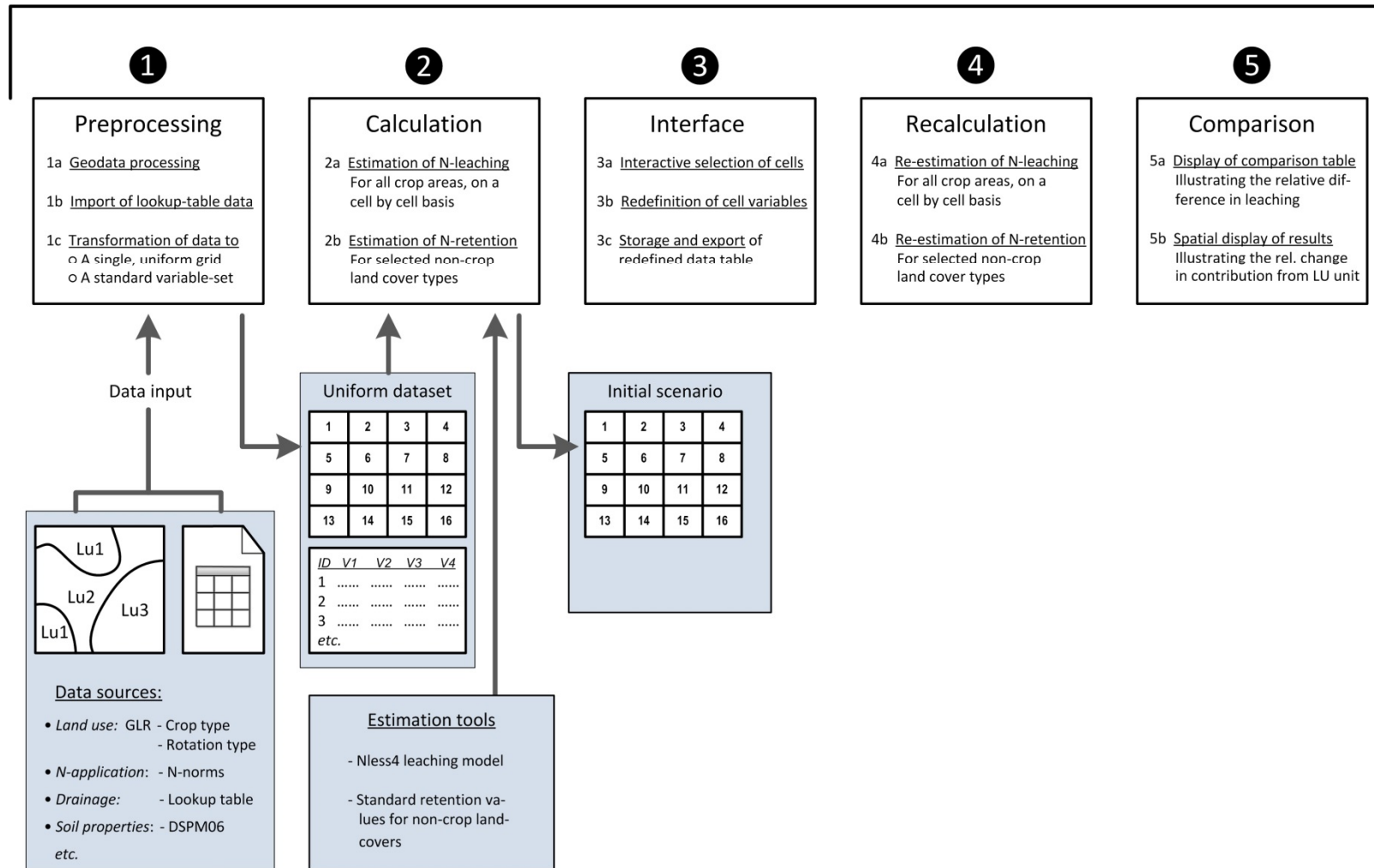
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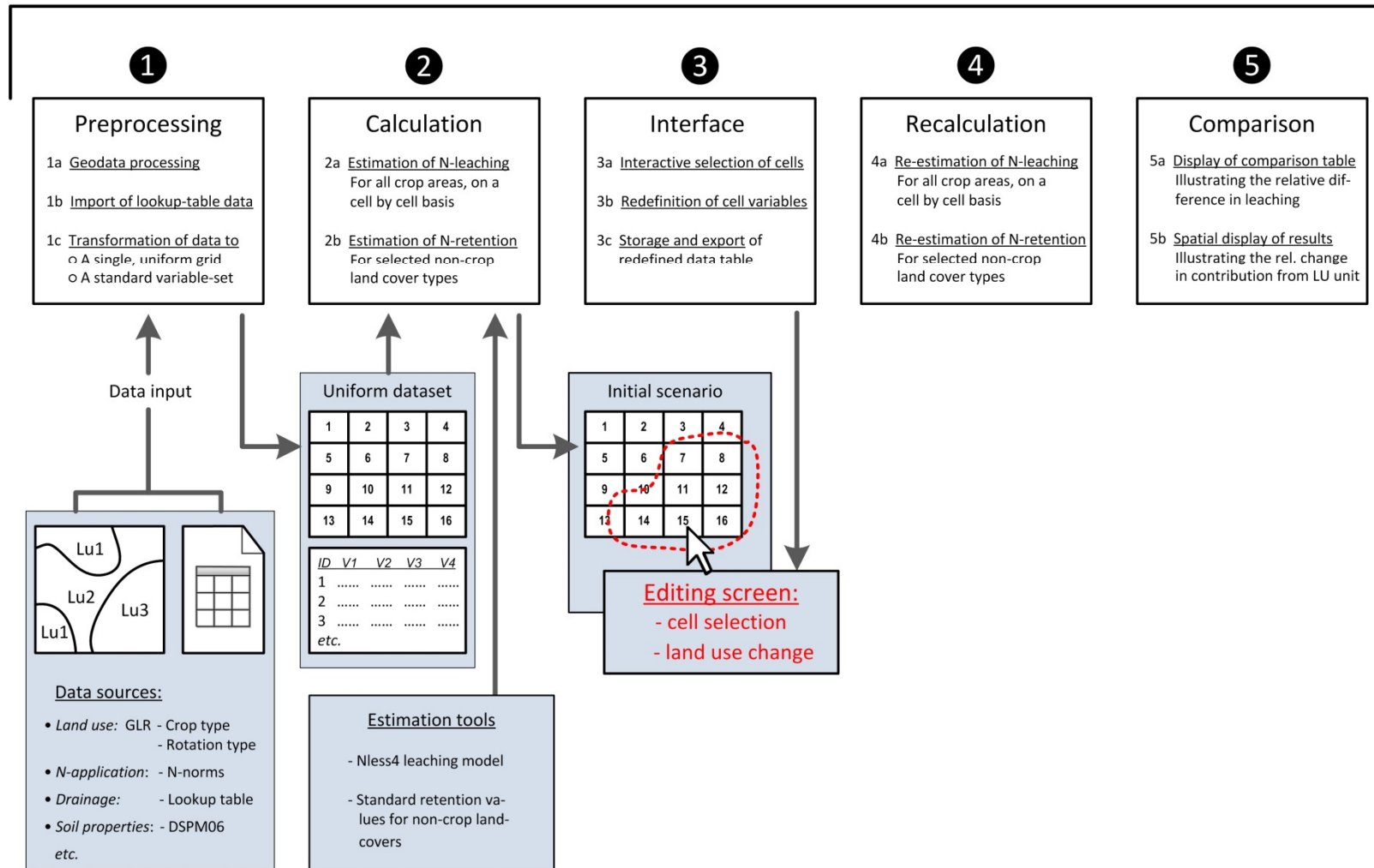
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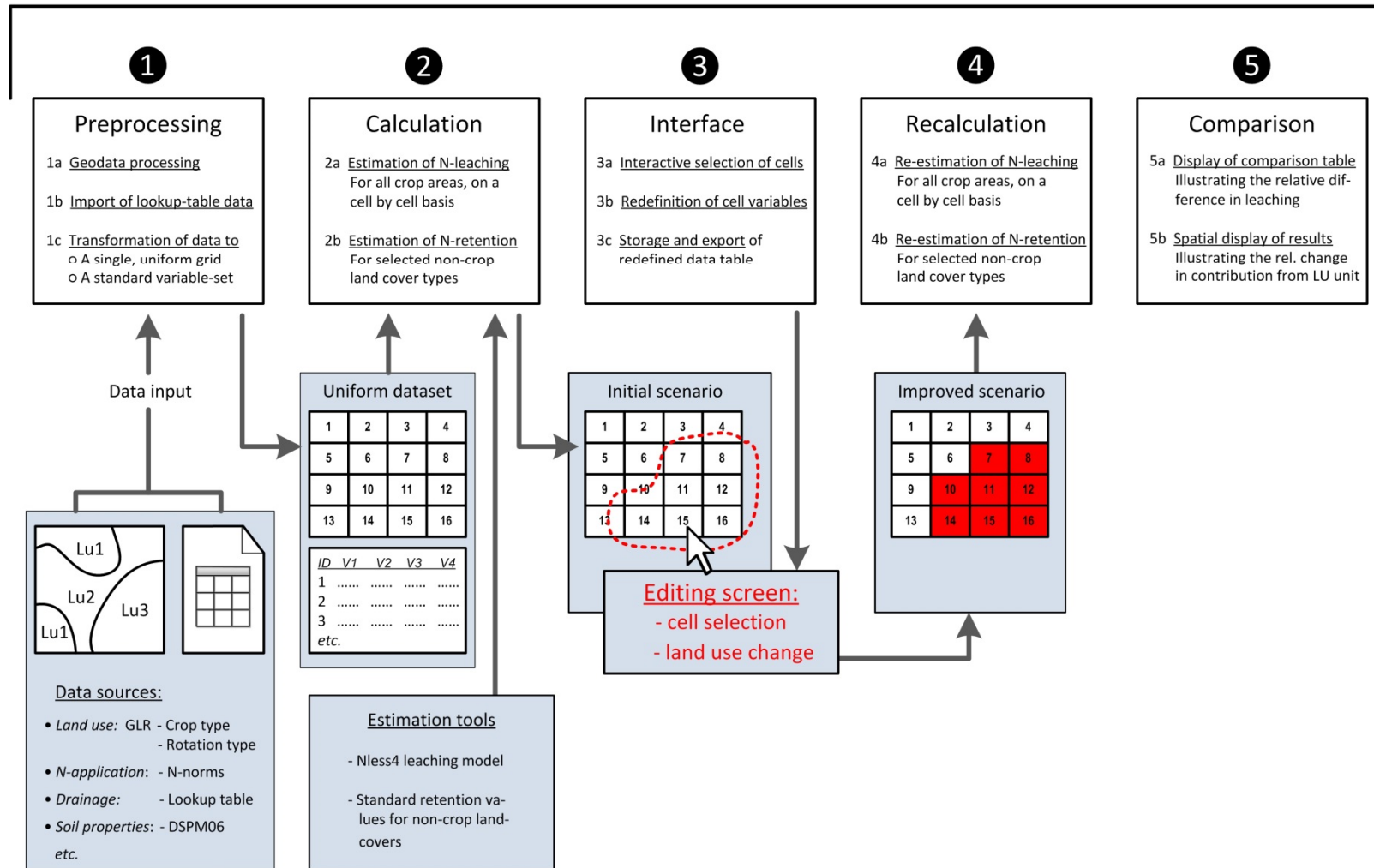
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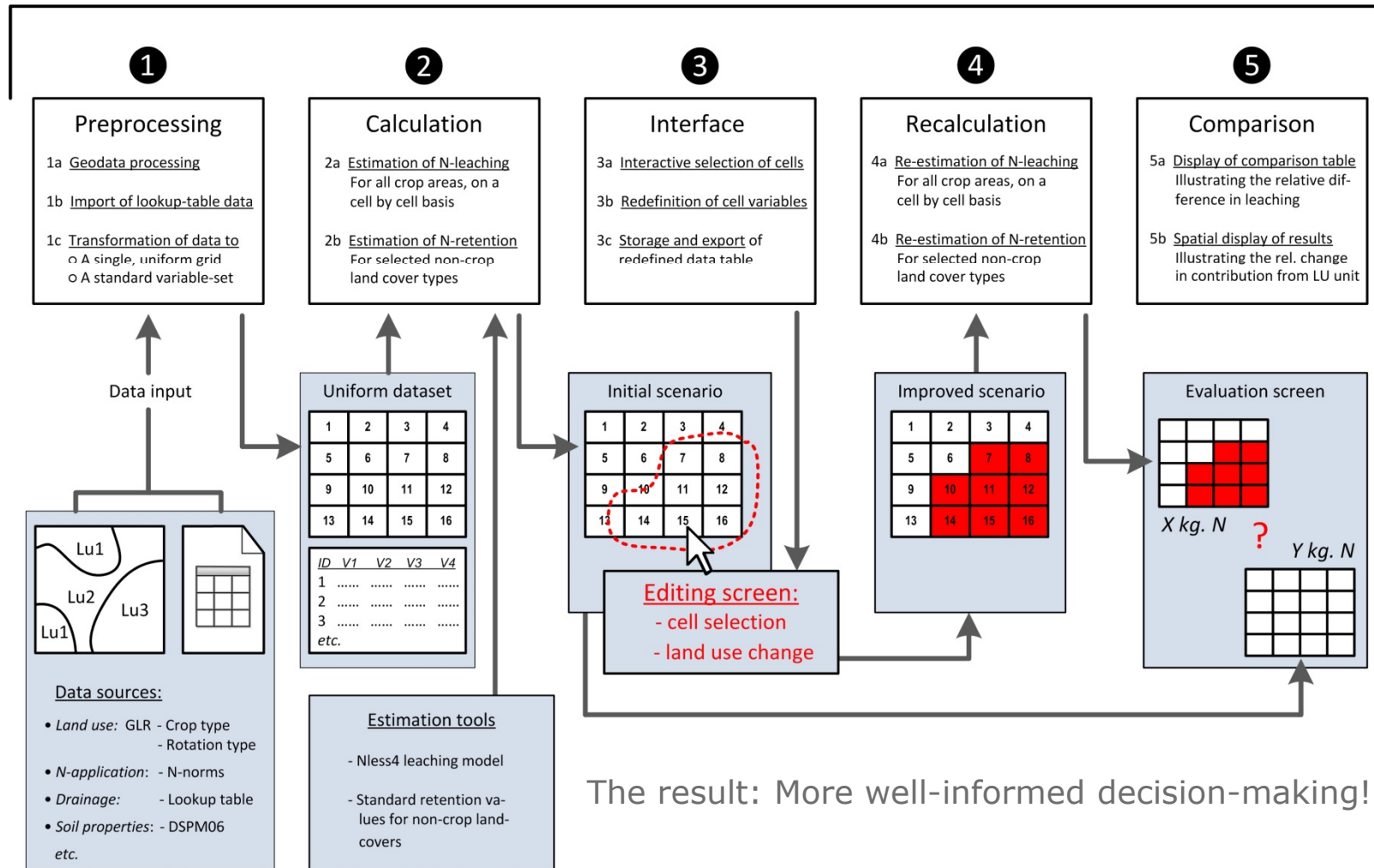
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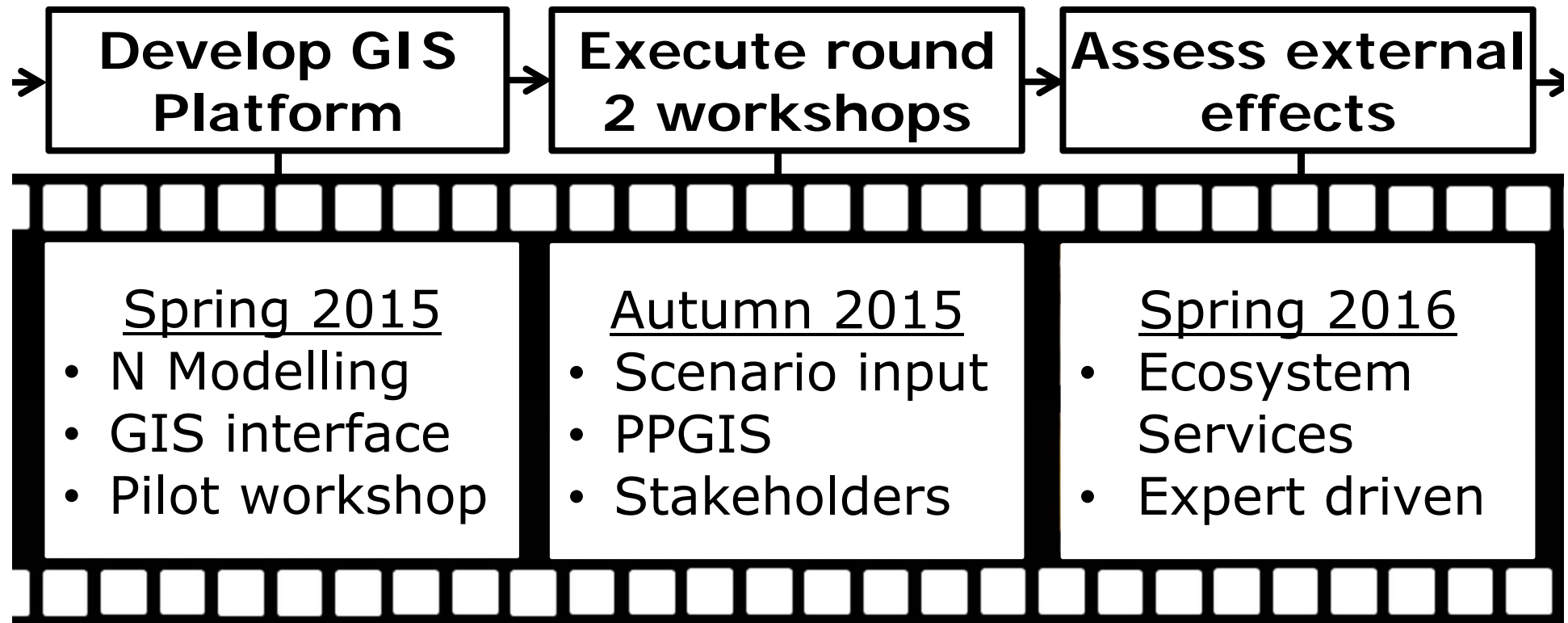


The result: More well-informed decision-making!



RC2 Landscapes – timeline 2015/16

- The planned activities within the next year:



Questions?

