

# Sustainable Agricultural Entrepreneurship

## A Cognitive Approach

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### 1 Problem Statement

Is the knowledge of farmers enough to deal with challenges in sustainable agriculture in the Netherlands?

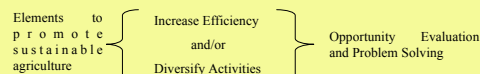
### 2 Sustainable Agriculture and Entrepreneurship

New EU policies threaten agricultural activities (starch potato growers) in the North of the Netherlands. The development of entrepreneurship in agriculture is needed in order to preserve cultural, ecological and environmental integrity yet to find ways to create economic profit (Marsden, 2005).



Components of Sustainability: People, Planet and Profit (Elkington, 1994).

The role of farming is changing. Farmers are acquiring business skills and developing new capabilities in order to be more competitive.



Farming

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Entrepreneurial Activity

There is a limited research on entrepreneurship in agricultural economics. Therefore, there is a gap in the literature that needs to be filled.

### 3 Cognitive Approach



The human information processor by Card, Moran and Newell (1983)

Entrepreneurship has been studied regarding the traits needed to become an entrepreneur but the role of cognitive functions should be a matter of deeper studies (Mc Elwee, 2005).

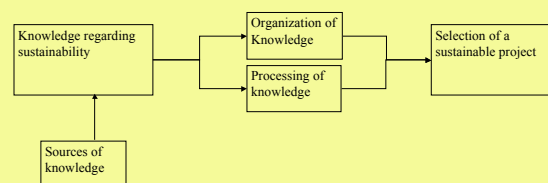
Entrepreneurial cognition studies the structures that people use to make decisions involving opportunity evaluation and problem solving (Mitchell, 2007).

The concept of problem solving is addressed based on the idea that humans can be conceived as an information processing system (Newell and Simon, 1972).

The study of these structures might show how entrepreneurs acquire, process and organize their knowledge.

### 4 Conceptual Model

Farmers are the main actors in the agricultural system. Farmers are entrepreneurs. Depending on how farmers acquire, organize and process their knowledge they will favor (or will not) a sustainable project.



### 5 Hypotheses

Farmers have, in order to run their enterprise, some knowledge about sustainability.

Farmers that prefer sustainable projects have a more elaborated way of organizing their knowledge than those who do not favor sustainable projects.

Farmers that prefer sustainable projects possess a more elaborated reasoning pattern than those who do not favor sustainable projects.

### 6 Research Questions

What kind of knowledge do farmers have regarding sustainability?

How do farmers, that favor a sustainable project, organize their knowledge?

What kind of reasoning mechanisms do farmers use to favor sustainable projects?

### 7 Aim of the Research

To understand what knowledge farmers have about sustainable agriculture.

To get insights regarding the way the farmers organize knowledge.

To identify the reasoning patterns used by farmers to interpret knowledge.

### 8 Boundaries

This study will be conducted in the province of Groningen, the Netherlands.

The level of aggregation is on farm level, including information suppliers of sustainability.

The research does not focus on cognitive architecture but in knowledge organization and reasoning.

### 9 Methodology

The methodological approach builds on the research tradition of cognitive science.

The first step will be to select the specific subjects of study within the province Groningen.

We will select relevant indicators for sustainable agriculture.

Our idea is to give questionnaires to farmers or confront them with problem situations that allow us to elicit their knowledge.

Among the possible procedures that we might use are surveys, cognitive maps and protocol analysis.

### 10 References

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