## **General**

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## Title

Automated break down analysis of time series for developments in Dutch agriculture

## Applicant

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## Strategic relevance

The FADN (Farm Accountancy Data Network) is a European instrument for evaluating the income of agricultural holdings and the impacts of the Common Agricultural Policy. The farms included in the Dutch FADN are a sample of agricultural and horticultural companies from the Agricultural Census. A wide variety of data is collected within the framework of the FADN. Not all collected data is currently used in an automated manner. The current open-up project within Wageningen Economic Research focuses on putting the data in a Data Warehouse. Once the required data has been included in the Data Warehouse, the data can be extracted relatively easily. These data are used for several purposes, including different kind of calculations. Calculations of, for example, cost prices are currently often done manually and are therefore error-prone and more difficult to reproduce. A good development would therefore be to automate calculations that can be done with the data from the FADN included in the data warehouse. After consulting various sector experts within Wageningen Economic Research, French-fries potatoes (in Dutch: frietaardappelen) were initially selected for the development of an automated method for cost price calculations.

## Objective

The aim of the project is to develop an automated cost price calculation method for French-fries potatoes that can be extended towards products from other sectors. This automated cost price calculation method should be established in such a way that it can also be used for other products; not only for arable products including French-fries products, but also for products from other sectors.

## Project description

The project starts with determining the most important cost items for the production of French-fries potatoes. Distinction will be made between fixed and variable costs. For reasons of convenience, the existing classification of costs as used in the Dutch FADN will be aligned as much as possible. Once all cost items are identified, cost have to be assigned to the production of the French-fries potatoes. Assigning fixed costs is assumed to be the most challenging part in the calculation process of the cost price.

After the development of the automated cost price calculation method for French-fries potatoes, a plan will be developed on how the automated method can be further developed, both for other products resulting from arable farming but also for products from other sectors included in the FADN.

## Expected project output

An automated cost pricing calculation method for French-fries potatoes consisting of analysis software (algorithms and scripts to have the data from the FADN interpretable and usable for research). The calculation method is amenable for generalisation towards other products and sectors. A follow-up plan is also a deliverable.