

**Project number:**

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**INNOVATIVE AND SUSTAINABLE SYSTEMS  
COMBINING AUTOMATIC MILKING AND  
PRECISION GRAZING**

## Description of Work

### Autograssmilk technology

Approximately 50% of all new milking parlours installed in the AUTOGRASSMILK consortium countries (except Ireland) being automatic milking systems. It is envisaged that 20% of cows in EU will be milked automatically by 2020. However, while indoor feeding systems have been well adapted to automatic milking, cow grazing systems have not. Automatic milking and grazing are currently considered as almost mutually exclusive. In order for automatic milking to become a realistic alternative to conventional manual milking in Irish grass-based systems, the practical challenges of integrating automatic milking and grazing must be researched. That is the focus of this project.

## International Context

An integrated automatic milking and grazing system has been operating successfully at Teagasc, Moorepark over the past 3 years. The system has 70 spring-calved cows of Friesian, Jersey-Friesian cross and Norwegian Red breeds. Some of the opportunities and benefits that can accrue from this model includes:

- The integrated AMS-Grazing model will allow AM within grass based systems and grass to form a greater portion of cow diets in AM farms in EU, which will have positive effects on cow well-being, sustainability, and profitability
- May allow expansion of milk production units within the current land base structure, where the purchase /leasing of adjacent land is limiting (very important in Ireland)
- Automatic milking can make dairy farming a more socially attractive occupation

This project has partners in France, Netherlands, Denmark, Sweden, Belgium. Evaluating from that perspective, and from the knowledge on integration of milking with grazing in other parts of the world, Teagasc work is definitely at the forefront.

## Opportunities

Ireland (the Irish dairy industry) would benefit by doing additional work on robotic milking in a grazing scenario. Now that the concept has been proven to work, there is a need to do additional research on the detailed optimal management of the system to enable the user to accrue the potential benefits of the investment.