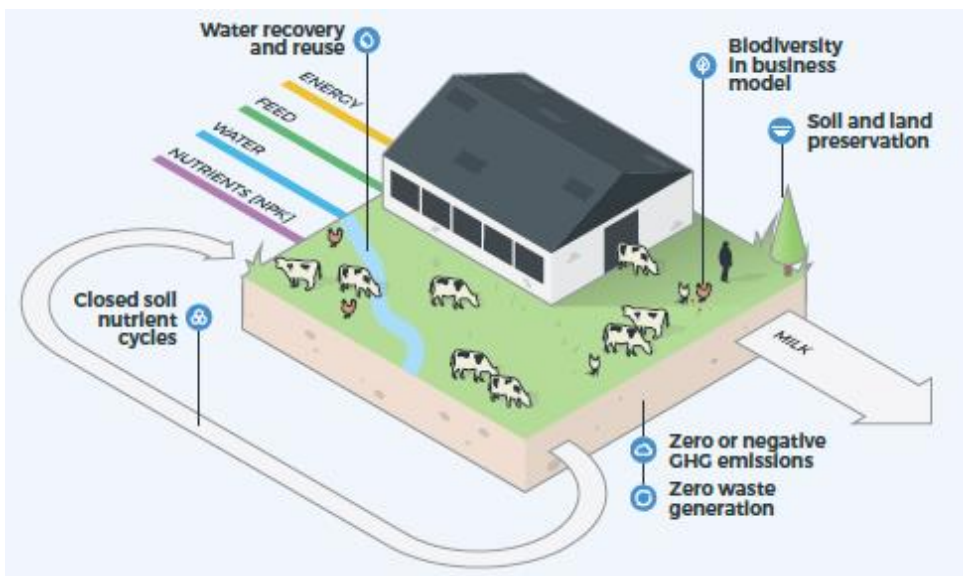


# Dairy as an important actor for climate and the environment

How dairy contributes to safeguard environmental resources when providing healthy nutrition - the European dairy sector is continuously working on improving not only its economic performance but also its unique circularity and sustainability.



Source: Friesland Campina report on the circular dairy economy, 2016

## Dairy towards absolute circularity

- By using **pasture land for feeding dairy cows**, by growing crops on changed pieces of land and by **refeeding the land with animal's dejection**, while at the same time keeping animals as a long-term stock of nutrients, the sector builds on the knowledge of humankind.
- Dairy cows have a unique ability to **consume non-edible food stock and turn it into a very nutritious protein that humans can eat**. Additionally, cows reside on land that cannot be used for agriculture, meaning they help **maintain a landscape** that would otherwise be inefficient for food production.
- Dairying plays a vital role at **enhancing and protecting biodiversity** across the EU. Dairying plays a land management role which allows biodiversity to prosper. European dairy farms are also compliant with the [Birds and Habitats Directives](#), as well as **taking part Agri-Environmental Schemes** which has hugely positive effects on biodiversity.

## Environment

### Where we want to be:

- Absolute circularity and virtuous water/energy cycle
- Zero-waste industry
- Participant of the global sustainability agenda
- Sustainable industry
- Small environmental footprint
- Net contributor to clean energy and biodiversity
- Towards a common water reutilisation practice

### Where we are:

- Dairy processes are already highly resource efficient
- Manure as an effective and environmentally friendly alternative to mineral fertilisers
- Continuous increases in production per cow, to reduce climate impact
- Helps keep landscapes intact, greening of peripheral areas, carbon sequestration and biodiversity

### EDA Factsheets:

- The importance of dairy in a sustainable diet
- Circular Economy
- Food Wastage #1
- Food Wastage #2
- Dairy Product Environmental Footprint (PEF) Project

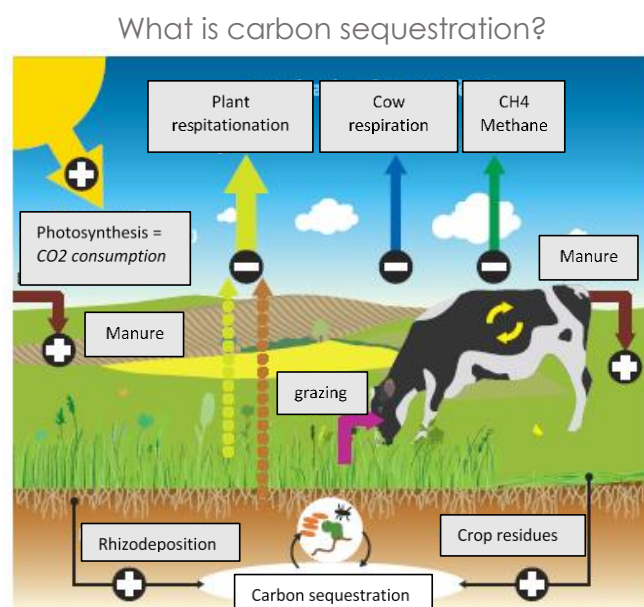
- Another way dairy can improve its sustainability is through **the reutilisation of water** in the dairy process. This prevents the need of **excessively drawing water from external sources** and the **discharging of too much waste water into water bodies**.
- The dairy industry is also a provider of natural energy. The technical University of Denmark experienced the benefits of **biogas production** and published a report in 2014<sup>1</sup>. By placing the manure in so called digesters valuable biogas is gained, which in turn can be used for gaining 'clean' energy. This in addition also helps reducing the manure-related emissions at farm level.

In recent years EDA has been a driver for the Joint Food Wastage Declaration of the food chain in Europe, and a → recent survey shows many examples of actions taken in the food and drink sector.

- After its time in the dairy **world none of the valuable resources of this precious animal is wasted**. As in the older days, almost all parts find their way back into the chain, the meat is sold to butchers, distributors or further processors, it can be used as pet food too while the skin is used for leather, and its bones for bone meal.

## A virtuous dairy sector

- Agricultural practices and in particular emissions from livestock have been the subject of contributing to global GHG emissions for a large number of years. However, recent figures showed that dairy livestock represents 4% of the global GHG emissions if we associate to milk production emission the processing and transportation and the meat production. But, the **overall contribution of milk production and transportation represents only 2.7% of GHG global emissions**<sup>2</sup>.
- Permanent grassland already **keeps carbon in places where else nothing could grow** while providing efficiently very essential nutrients<sup>3</sup>.
- As an example for carbon sequestration in dairy a French study shows that **carbon sequestration could compensate up to 40% of dairy livestock's GHG emissions** depending on the feeding method. One hectare of permanent grassland could be calculated to stock an average of 570kg of CO<sub>2</sub> a year (depending on land management practices).<sup>4</sup>



Source : CNIEL

<sup>1</sup> Technical University of Denmark, Experiences with biogas in Denmark, 2014

<sup>2</sup> FAO report, Greenhouse Gas Emissions from the Dairy Sector, 2010

<sup>3</sup> EDA nutrition factsheet

<sup>4</sup> Figures IDELE.2015



## Did you Know?

The → **Dairy Product Environmental Footprint (PEF) pilot**, under the umbrella of the Commission and driven by EDA is a major project to understand more about environmental hotspots of different dairy products and looking at a multitude of environmental indicators, like climate (GHG emissions) but also water and land use for example.

- The **health and welfare of dairy cows** is at the center of any dairy farmer’s attention, as healthy animals represent the crucial base of dairy the production<sup>5</sup>. Tremendous progress has been made with regards to cow welfare. As the EDA members are aware of the World Organisation for Animal Health (OIE) standards, the dairy sector is fully committed to continue its efforts on this matter. Several schemes (National Dairy Farm Assurance Scheme, Code of Welfare, Action Johne’s Initiative in 2015, etc.) along with strict European directives and regulations guarantee a quality label to meet the EU standards, with respect for animals and reducing the dairy sector’s environmental footprint of optimum importance.

- **Sustainable development goals (SDGs)** are part of a universal agenda that is meant to bring the world onto a sustainable and resilient path. Overall there are 17 goals with 169 targets. The European Dairy sector is playing a key role in fulfilling these goal as it provides key nutritional, social and economic inputs.



## Dairy sustainability on a global stage

To know more about the recent sustainability efforts and progress of the dairy sector, → **the Dairy Sustainability Framework (DSF) annual report from 2015/2016** mentions some valuable projects, initiatives and figures reflecting the state of play of the dairy sector’s sustainability.



<sup>5</sup> EDA Sustainability Statement on animal welfare, 2015