

# Eco-grazing - Grazing for ecological grasslands maintenance in the green areas of Brest Metropole

The Head of Green Spaces of Brest Metropole has chosen to entrust the management of the mowing of some of their green spaces to an eco-grazing service proposed by a breeder with a part of his flock of Scottish Black Face-bred sheep whose production (lamb meat) is subsequently sold (not cull or amenity animals as classically done). Eco-grazing is more expensive than conventional mowing, but has been chosen for the many environmental services that result (reducing GHG emissions, reducing noise, social link, local agriculture, invasive plant management, favouring mellow-flowering plants).



## Summary

Brest Metropole has explicitly chosen eco-grazing to manage the mowing of some of their green spaces instead of the conventional mowing, although less expensive, because of the environmental services produced by eco-grazing (decrease in the carbon footprint, noise reduction, social link etc. that are perceived by the metropolis). Even though environmental services are not explicitly paid through the current contract (public contract with specified technical clauses), the higher price of eco-grazing could be considered as the city's willingness to pay for induced environmental services. The choice of Brest Metropole in eco-grazing is motivated by the provision of environmental services that could not be produced by thermal mowing. It is a 6-years contract, to guarantee a long-term vision for the breeder.

### Objectives

1. Decrease in carbon footprint (from 2 to 8 mower interventions to max 1 passage with a lighter machine)
2. Noise reduction
3. Social link in neighborhoods
4. Meat production from local urban agriculture
5. Biodiversity, invasive plants management
6. Alternative approach to thermal and chemical tools



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### Problem description

Brest Metropole used to manage extensive meadows using the mower and other thermal tools. In order to implement greener management of these grasslands, the Head of Green Spaces took the initiative to introduce eco-grazing, which was more expensive than previously done. A breeder responded to the call for tender by proposing to set up eco-grazing as part of his organic lamb production, to ensure the maintenance of meadows and to provide the desired environmental services.

## LAND TENURE

Eco-grazing – pleasure meadows - local urban agriculture – breeder-meat production – ecological maintenance



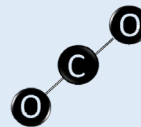
## PUBLIC GOODS



Landscape and scenery



Biodiversity



Climate regulation - greenhouse gas emissions

## LOCATION

## FRANCE



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Brest Métropole, France

## CONTRACT

It is a contract between a public structure (Brest Metropole) and a private person, a livestock breeder



**Contract conclusion:**  
Written agreement



**Payment mechanism:**  
Public  
procurement/tender

**Length of the contract/  
of participation in  
contract solution:**

1<sup>st</sup> contract: 6 years/2  
years  
2<sup>nd</sup> contract: 7 years / 1  
year (ongoing)



**Start of the program:**  
January 2018- still  
ongoing

## Data and Facts - Contract

**Contract feature:** Land-tenure. The pleasure meadows have a different management with eco-grazing without changing the use of the site. There has been an increase in the number of visitors to green spaces in the presence of sheep. The periodic presence of animals is extremely appreciated by people of all generations (especially parents and their young children, young teenagers, elders).

**Indirect effects:** The management of the extensive grassland of Brest Metropole (eco-grazing) has resulted in benefits in terms of biodiversity (invasive plant management, control of brushwood progression), improvement in physical health (decrease in noise, improvement of well-being) and social bonding, as well as local production of urban meat (being in the general interest from the point of view of the Brest Metropole).

**Participation:** Contractors are a professional breeder and Brest Metropole (Head of Green Spaces). As part of the eco-grazing, a breeder is involved, who practices eco-grazing on 28 hectares of green spaces in the Brest Metropole area (19 hectares in 2018, which could go up to 40 hectares,). The area involved are the green spaces of Brest Metropole, which cover a total area of 860 hectares (not necessarily pasturable yet). The idea would be to join other external partners (companies, schools...) and their surfaces, which could greatly expand the eco-grazing area in order to reach a potential of 200 hectares of pasture in the territory of Brest Metropole. In the short term, the objective would be to reach an area of 70 hectares in eco-grazing and to install a shepherd and a herd on site.

The Head of Green Spaces and the farmer agree on the management of the pasture on small plots, not necessarily close to each other, ensuring that there is enough food for the sheep while having a grass not too high. The breeder's responsibility is the weekly movement of the sheep (i.e. 4 to 5 hours of work with a sheep dog), the health management of the herd and the emergency interventions (escapes, diseases, etc.). Green Spaces are responsible for the supply, installation and maintenance of the fences, the provision of water and the daily visit to the lots of sheep on the plots (counting, lame detection, sick animals). The population near the grazed areas benefits from the reduction of noise pollution and the social bond that is created by discussion around sheep and interactions with them.



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## CONTRACT

### Funding/Payments:

The payment for the eco-grazing is less than 400 euros/hectare/year excluding taxes. It comes from Brest Metropole. The land rent is graceful as well as the grazing and provision of a 3.1 ha parcel of meadows and a few small buildings (by contract on the duration of the market).

### Renewal of the contract:

No  
(public tender has to be proposed again to continue the activity)

### Termination of the contract:

There are termination clauses on both sides with a notice period. On the Brest Metropole side, it occurs if there is a non-completion (CCAG - General Administrative Clauses Book).

**The benefits for the livestock breeder:** This is a first step before not only contracting the eco-grazing service but associated environmental services and for extending this activity to other areas on Brest Metropole territory and with other financiers, especially private ones.

**The benefits for the Head of Green Spaces:** It is an alternative to mowing. It produces a range of environmental and ecosystem services (noise reduction, GHG reduction, endemic biodiversity, social link, local agricultural production). In order to sustain the eco-grazing activity, the Head of Green Spaces promotes eco-grazing and related environmental services to private and government partners and is considering the integration of eco-grazing and agricultural food production in a broader reflection, for example in the context of the Territorial Food Plan.

### Management requirements for the farmer:

- to provide a herd with a minimum of 40 sheep, up to 80 depending on the season and the maintenance goal;
- to ensure the health monitoring of the animals and to ensure the preservation/improvement of the health of the animals in his care;
- to ensure the movements of the sheep from one place to another.

**Controls/monitoring:** At this time, there are no indicators, except for potential complaints from the public/individuals who enjoy recreational grassland but on the contrary, the local population appreciates this type of management. The Head of Green Spaces manages the annual planning of the pastures, with two person who follow the condition of the plots (visual aspect) on a weekly basis (at least) depending on the condition of the plots and the amount of food available for the animals. The breeder and the Head of Green Spaces jointly determine the number of animals to be deployed (the breeder adjusts according to his own appreciation of the feed availability of each plot at a given time).

**Conditions of participation:** No special conditions, other than to match Brest Metropole's requests issued during the tender (CCTP - Special Technical Clauses Book) and to offer an eco-grazing service at a rate that fits into the budget of the Green Spaces.

**Risk/uncertainties of participants:** The risks of the participants are shared, although more important for the breeder, for him they are particularly related to animals, and in this case, the risks are borne by the farmer (escapes related to malevolence and the condition of the fences, loss, theft, aggression by dogs in particular, sudden death). The risk of grazing discharges is limited by the breed used (Black Face), but there is a mulcher passage each year. There is also a risk of vandalism on the fences, which is the responsibility of the Green Spaces.

## Context features

**Landscape and climate:** The climate is temperate ocean. The landscape to be mowed is characterized by meadows spaces mainly, with invasive plants, brambles, ivy on tree trunks, heath and heather, some undergrowth. The breed of sheep (black face) was chosen for its ability to ingest these plants, refused by other breeds, and its resistance to bad weather. Black Face **sheep** are relatively wild which limits its fraudulent collection.

**Farm structure:** A farm/shepherd that offers eco-grazing with a breed adapted to environments and constraints (including management of invasive plants).

## SUCCESS OR FAILURE?



This is a successful contractual solution as the Head of Green Spaces is satisfied with the contracting of eco-grazing (limited investment, low-cost maintenance, little work for agents, low equipment maintenance and little fuel, no risk of economic loss), and wants to increase the number of plots where he can set up eco-grazing. The Head of Green Spaces is actively looking for private or public partners (and the farmer for private or public financiers) to expand eco-grazing (and associated environmental services) on the Brest Metropole perimeter and to allow an explicit payment of the eco-grazing environmental services. For the farmer initially involved, it is a failure, since he stopped all of his farming activities in December 2020. Since, a new public tender has been launched successfully. There is now a 7-year contract with the association "Vert le Jardin" who employs a full-time breeder to perform the eco-grazing and breeding activities. Based on their past experience, the payment of ecograzing has increased more than 500 €/ha.

## Reasons for success:

- Eco-grazing has proven to be successful for the population, people are asking for it and become more animal-friendly.
- The contracting farmer/association proposed a breed adapted to the needs of Brest Metropole.
- An increased payment for the ecograzing activity and a strong involvement of both contracting parties (for the last contract).

## SWOT analysis



"The INRAE Team in CONSOLE bears the entire responsibility of this factors of success and failure appraisal"

## Main external factors influencing success

Political/governance, economic/market, social, technological, legal and environmental factors can all have a strong impact on the success of contract solutions. In this case study an in-depth analysis found that the following, selected factors were of specific importance.



**Multiple beneficial side effects create win-win situations:** compared to the old system of mowing, with sheep, only one cut is done. There's a lot **less noise with sheep**. Moreover, since the implementation of eco-grazing, there is a **greater diversity of flora in the meadows**.

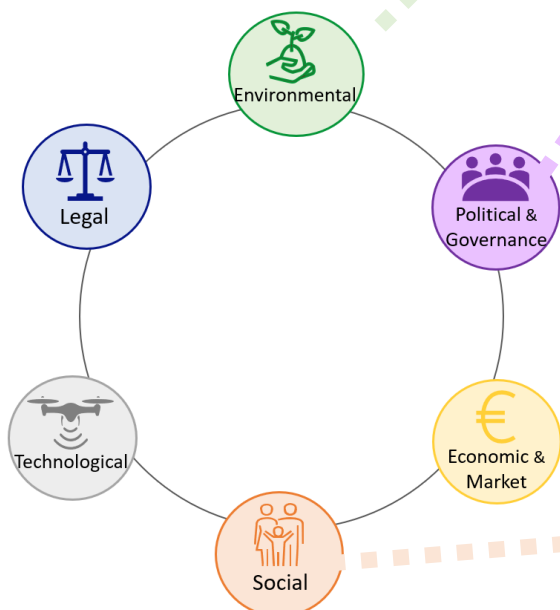
*>> There is an improvement in the carbon footprint, less noise pollution and a greater diversity of flora in the meadows. <<*

**The role of regional political will:** The “political framework” for the initiation of the initiative was not public policy, but rather the distinctive political will and of two elected officials, that led to the change in management and the implementation of eco-grazing.

**Social appreciation:** the sheep plots have become a place to walk, and citizens appreciate the sheep (monitoring, spontaneous counting, one-time help) and there is a decrease in vandalism.

It became obvious that in periods when sheep are absent people were disappointed. The citizens attachment enables the perpetuation of this activity.

**During the shearing of the sheep,** it is an opportunity to make a day of animation around it with the schools, with educational and cultural aspects, and in the future a possible return of transhumance activities.



**Developments in the Program since 2020:** Following the departure of the previous breeder, a new 7-year public contract has been made with the association “Vert le Jardin” who employs a breeder installed on site. Compared to the last contract, the payment has increased from less than 400 €/ha/year to more than 500 €/ha/year. There will be larger flocks (20 ewes) moved more often, with for now a flock of 100 ewes of the Lande de Bretagne breed (local breed). The breeder takes over the management of the drinking troughs and the green spaces department takes over the management of the fences. It is the breeder who builds his schedule according to the state of the pasture. There is better landscaping: the state of the grass is monitored by the breeder, and the animals are changed plots as soon as the mowing height target is reached.

There continue to be activities offered to local residents that are supported by the association “Vert le Jardin”. A wool activity is being relaunched together with a production of lambs. Animations are made on how to behave or approach the sheep, how the herd works, what to do if you want to have one or more sheep at home.