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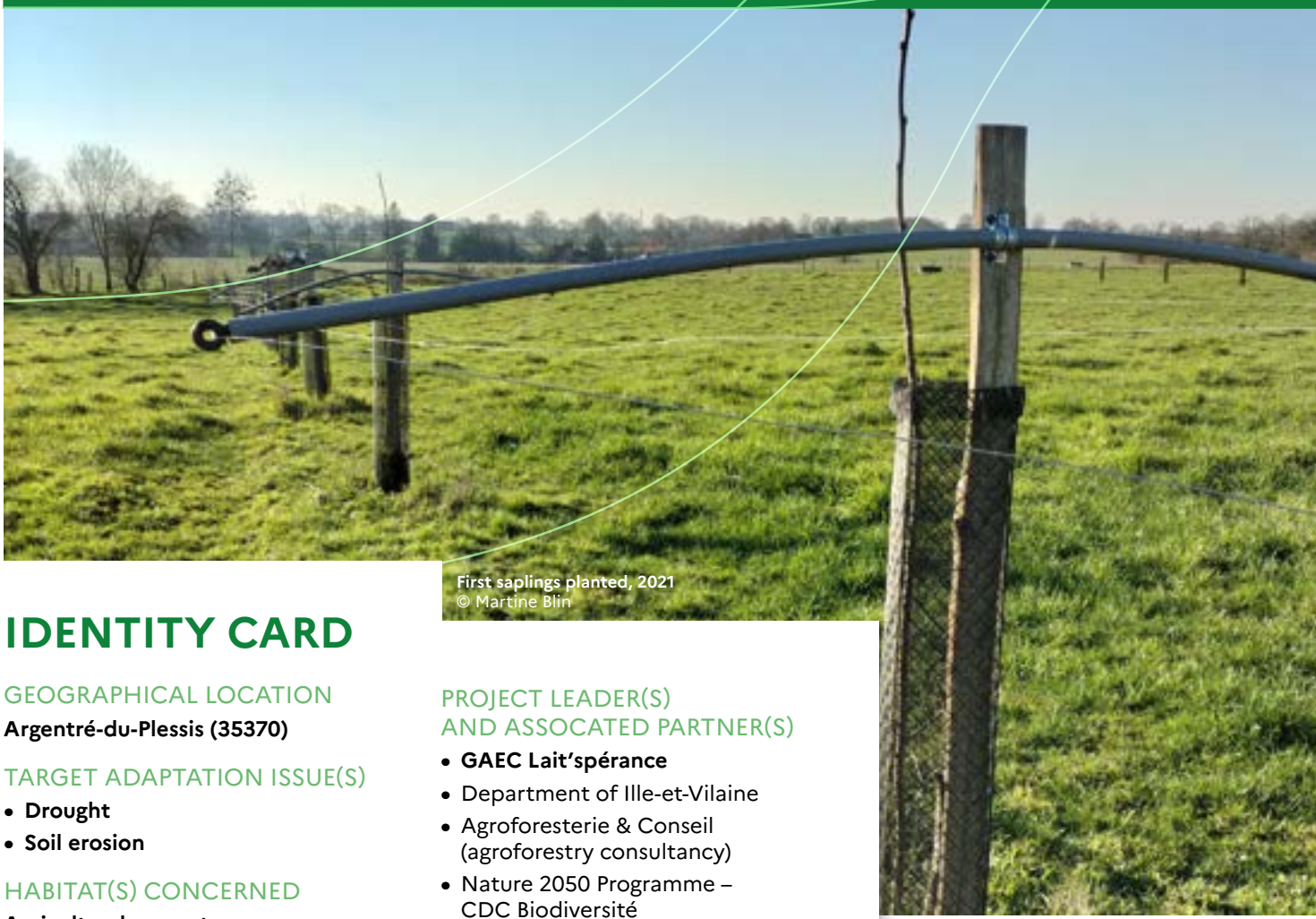
OFFICE FRANÇAIS DE LA BIODIVERSITÉ

GAEC LAIT'SPÉRANCE

2019 - 2050



First saplings planted, 2021
© Martine Blin

IDENTITY CARD

GEOGRAPHICAL LOCATION

Argentré-du-Plessis (35370)

TARGET ADAPTATION ISSUE(S)

- **Drought**
- **Soil erosion**

HABITAT(S) CONCERNED

Agricultural ecosystem

TYPE(S) OF NBAS

Sustainable management of ecosystems : improving the farm's resistance to climate change by restoring the ecosystem functions provided by trees, in particular providing cool conditions for livestock, shade for meadows and soil regeneration.

PROJECT LEADER(S) AND ASSOCATED PARTNER(S)

- **GAEC Lait'spérance**
- Department of Ille-et-Vilaine
- Agroforesterie & Conseil (agroforestry consultancy)
- Nature 2050 Programme – CDC Biodiversité

FUNDERS AND BUDGET

- Nature 2050 Programme – CDC Biodiversité : 20 000 €
- Department of Ille-et-Vilaine : 13 709 €
- Lactalis : 1 266 €

Total budget : **34 975 €**

In addition, the cost of maintaining and monitoring the project until 2050 will be covered by GAEC Laitspérance and CDC Biodiversité.

Third strip of saplings planted
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PROJECT OBJECTIVES

- **For adapting to climate change :** limiting drought and soil erosion.
- **For biodiversity :** offering a refuge for biodiversity and regenerating soil life by reintroducing trees to grazing land.
- **For the local area :** strengthening the long-term economic sustainability of the farm.

REGULATORY CONTEXT OF THE PROJECT

- Regional Ecological Cohesion Plan for Brittany
- Territorial Coherence Scheme (SCoT) for the Pays de Vitré area

CONTEXT AND ISSUES

The joint agricultural grouping (GAEC) Lait'spérance has been labelled as having converted to organic farming and has a herd of 110 Phrim Hostein dairy cows and 70 heifers for milk production, the farm's main activity. Today, the farm is facing problems of soil erosion and repeated droughts, causing yield losses and discomfort for the herd in summer.

By reintroducing trees into the farm, the issue is to provide a safe haven for biodiversity while ensuring that the farm is managed in a more sustainable way. The planting of tall trees and fodder thickets in rows will both enable shade to be provided for the animals and provide a complementary and diversified source of fodder, based on regular pruning and controlled grazing. They will also have an innovative function, enabling them to produce ramial chipped wood (RCW). Once chipped and spread on the soil, it will encourage natural soil regeneration by reconstituting forest humus. The wood chips can also be used as mulch before being returned to the plots. The total surface area of the project is 18.8 ha.

ACTIONS IMPLEMENTED

Begun in 2020, the work consisted in :

- Planting 447 melliferous species of tall trees at 6-metre intervals on a linear grass strip 2682 metres long and one metre wide. Between two rows of trees, the cultivated or grazing area is 24m wide on the first plot and 36m wide on the second, enabling favourable conditions for reintroducing biodiversity to the plots.
- Planting 1,005 fodder trees every metre.
- During the winter of 2020-2021 : planting 266 tall agroforestry trees, covering an area of 8.8 ha.

In addition to the Nature 2050 developments, an additional one-week participatory operation to plant standard trees over 34 ha.

GOVERNANCE ADOPTED

Long-term management, maintenance and monitoring of the planted trees will be the responsibility of the owners. The farm is supported by CDC Biodiversité via the Nature 2050 programme and its scientific partners in defining and monitoring indicators until 2050, in addition to co-financing the action.

SCHEDULE

PROJECT LIFESPAN

	2019 - 2020	**2020 - 2021**	**2021 - 2050**
Works	1st planting phase on 10 ha.	2nd planting phase on 8.8 ha.	
Monitoring and assessment			Nature 2050 Programme monitoring indicators

Aerial photo of the farm, 2022
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BENEFITS AND CONTRIBUTIONS OF THE PROJECT

BENEFITS REGARDING TARGETED ADAPTATION ISSUES

- Improving the resilience of the farm (to drought, flooding, frost, etc).
- Reducing soil erosion and soil leaching on sloping land.
- Improving shade and the windbreak effect on the farm.
- Creating cool islands.

BENEFITS FOR BIODIVERSITY

- Increased diversity of plant species and habitats favourable to biodiversity.
- Improved well-being for the herd.
- Encouraging natural soil regeneration through the use of ramial chipped wood (RCW).

OTHER BENEFITS

- Reducing climate change by encouraging carbon sequestration.
- Recreating a pleasant, wooded landscape for residents and visitors alike.
- Raising awareness of the benefits of agroforestry among neighbouring farms.
- Promoting local production of ramial chipped wood (RCW).

MONITORING INDICATORS

Adaptation to climate changes

- Ecosystem evolution/maturity : measurements to assess soil health and the natural abundance rate of Nitrogen 15 in leaves

Biodiversity

- Monitoring earthworms
- Monitoring birds

Other

- Camera monitoring
- Project outreach

LEVERS FOR SUCCESS

TECHNICAL ASPECTS AND PROJECT DESIGN

- **Planting trees around livestock buildings** so that the animals can benefit from the shade and cool of the trees.
- **Protecting young trees f**rom animals in grazing areas by setting up electric fences at the right height so that heifers cannot pass under them.
- **Keeping trees at least 24 metres apart** to allow farm machinery to pass through.
- **Seeking specialist advice** on the choice of tree species.
- **Seeking public subsidies and corporate funding** to cover some or all of the planting costs.

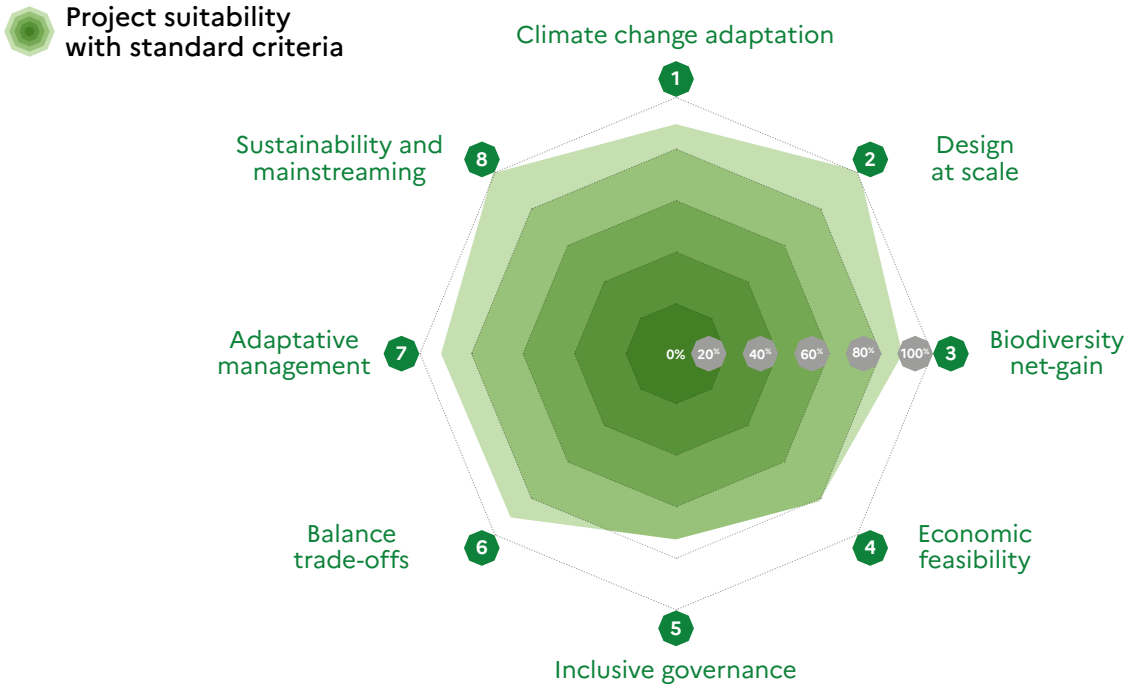
STAKEHOLDER COMMITMENT

- **Inviting schools** to participate in planting workshops.

MONITORING AND REPLICABILITY OF THE ACTION

- **Adaptation through evaluation :** setting up a monitoring and assessment system via the Nature 2050 programme ensures that the project can be evaluated and adapted to improve its effectiveness.
- **Anticipating how long the trees will take to grow,** as it will take several years before they are tall enough for the herd to benefit from the shade.

ANALYSIS ACCORDING TO THE IUCN'S GLOBAL STANDARD FOR NATURE-BASED SOLUTIONS



FOR FURTHER INFORMATION

- Webpage (in French) of the Nature 2050 programme
- Project page on the (in French) CDC Biodiversité website

CONTACT DETAILS OF THE PROJECT LEADER

- **Monsieur Régis Badie et Madame Martine Blin**
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DATE

March 2023
January 2024

DATE AND FACT FILE EDITOR

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www.secondRegard.fr - Coordination : Direction de la communication - Septembre 2024

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