Technical Sheet for Solution Implementation

Diagnose and Improve Your Farm Footprint

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Thematic Area: Environmental Sustainability.

Priority: Management of resources and adaptation of practices to climate changes.

Need: Ecological footprint of farms: what practices to reduce it on our farms? What are the negative impacts of the sector on climate change, and how can they be limited?

Solution EU Number: CC-1.

Content of the Solution: Diagnostic tools like CAP'2ER® enable horse farms to assess their ecological footprint and make data-driven improvements in sustainability, animal welfare, and resource efficiency.

Key Contacts:

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Case Study: Not available.

Reasons for Implementing this Solution

Implementing a diagnostic tool such as CAP'2ER® can help equine farms to measure their ecological footprint and optimize resource use, improve animal welfare, reduce environmental impact, and enhance long-term economic and operational sustainability through data-driven decision-making.

Description of Solution Strategies

The ecological footprint in equestrian sport, often referred to as the «ecological hoofprint», comprises the environmental impact caused by the keeping and use of equines. This includes aspects such as feed production, water consumption, stable construction, transportation to events and the manufacture of equipment and clothing. Specific tools and initiatives are available to measure and reduce these impacts:

- **CAP'2ER® (Calcul des Performances Environnementales des Élevages de Ruminants)** is a tool originally developed for cattle farming that can also be adapted to equine farms. Developed by the French Institut de l'Elevage (IDELE), it enables farmers to assess the environmental footprint of their farm and identify levers to improve their impact. takes into account various environmental indicators, including climate change, fossil energy use, nitrogen balance and ammonia emissions. It assesses both negative impacts and positive contributions such as carbon sequestration and biodiversity.
  - Level 1: Awareness - An educational tool for the general public, students, growers and advisors that provides a quick initial assessment of environmental performance.
  - Level 2: Action - A decision support tool for advisors and technicians that provides a detailed assessment of the environmental footprint, identifies areas for improvement and creates action plans.

- **Awareness-raising initiatives:** Organizations such as Riders For Future are committed to raising awareness of sustainability in equestrian sport. They offer information and tips on how riders and owners of equines can reduce their ecological hoofprint, for example through sustainable feeding, environmentally friendly stable management and the reduction of transport emissions

The availability and conditions for subsidies and tax concessions may vary. It is therefore advisable to contact the relevant authorities or advice centers to find out about the current possibilities and conditions. There are various funding opportunities for equine businesses wishing to implement sustainable practices. These grants are divided into different programs and include:

- CAP (Common Agricultural Policy) - with green direct payments and subsidies for sustainable agriculture.
- EAFRD (European Agricultural Fund for Rural Development) - supports projects for energy efficiency, climate protection and animal welfare.
- Promotion of climate-friendly agricultural projects - financial support for CO_2 reduction and sustainability projects.
- Funding for innovation and research in the field of sustainability - through programs such as Horizon Europe.

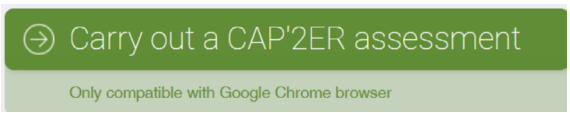
Equestrian businesses that analyze and improve their sustainability using tools such as CAP'2ER® or similar solutions can benefit from these subsidies and tax breaks..

Implementation Steps

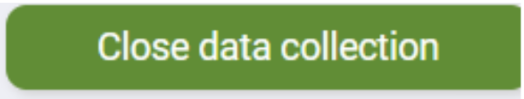
There are two ways to carry out a Level 1 CAP'2ER® assessment of your equine farm:

- **Call on a specialised advisor**
  - Advisors can carry out an assessment, which they will analise with the farmer. The farmer thus benefits from personalised support and tailored recommendations.
  - In France, the results of the assessment are entered into a national database, contributing to a better understanding of the impact of equine activities across the country.
  - This service may incur a cost for the farmer.

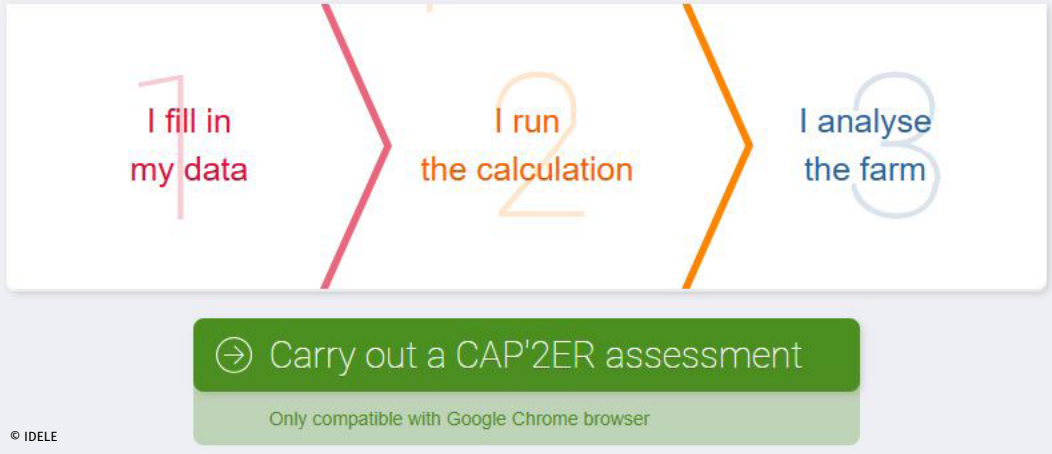
- **Perform a free online self-diagnosis:**
  1. Go to the CAP'2ER® website: https://cap2er.eu/
  2. Click on:



3. Fill in your farm data:
    - General data and identification of farm.
    - The equine herd description.
    - Surface area linked to the equine herd.
    - Inputs used by the equine herd (consumption of energy, forages, concentrate, etc.).
4. Validate the technical data calculated to close data collection.
5. Click on:



6. Read your results.
7. If needed ask an advisor to help you to understand the result and how to act to improve it.



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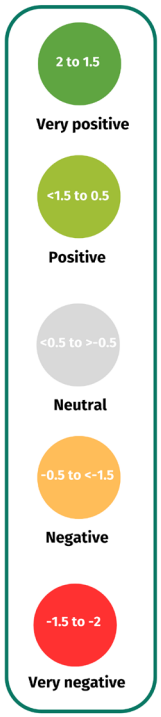
How Will this Solution Impact the Performance of your Farm ?

TOPIC	SCORE
Social	1.50
Economics	1.00
Welfare	1.50
Health	1.50
Environmental	1.30
Pasture access and management	2.00
Global	1.42



Color coding explanation

Socioeconomics: This solution will support the social performance of the farm because it demonstrates a clear commitment to environmental protection and sustainability, reinforcing the farm's social responsibility. This strengthens its integration into society, improves public perception, and enhances customer satisfaction while positioning the farm as a responsible and forward-looking actor in the equine sector.

This solution will support the economic performance of the farm because it enables savings through more efficient use of resources, attracts potential investors interested in sustainable projects, and can increase long-term profitability. Although initial investments in technology and training may affect short-term profitability, the overall impact supports stronger financial sustainability.

Health & Welfare: This solution supports the health performance of the farm by enabling monitoring and, where possible, reducing emissions that may negatively affect the general health of equines. Moreover, environmentally adapted feeding practices can directly improve the nutritional status and resilience of animals by helping to maintain low levels of pain, mortality, and drug use.

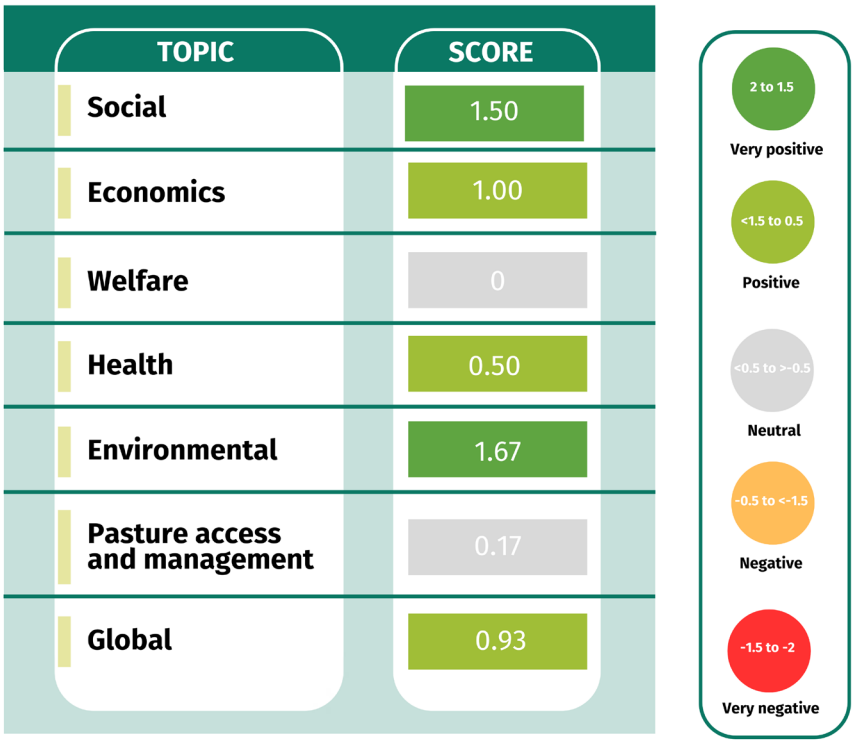
This solution will support environmentally oriented farms, that are typically more inclined to adopt welfare-friendly practices. Such practices may include improved housing conditions, greater access to healthy pasture, and management systems that prioritize the comfort and natural behaviors of horses, thereby enhancing their overall well-being.

Diagnose and Improve Your Farm Footprint

Environmental Sustainability: This solution will support the environmental performance of the farm because it promotes sustainable practices that contribute to the reduction of emissions. By implementing sustainable management practices, equine farms can contribute to the conservation of biodiversity. Tool can help optimize the use of water, which leads to better use of resources

This solution will support the land access or management performance of the farm because Use of assessment and information tools can promote sustainable grassland management which supports good maintenance of the equines and the environment.

How Will this Solution Impact the Resilience of your Farm?



Socioeconomics: This solution will support social performance of the farm facing external challenges assessed because it fosters shared awareness and collective responsibility. Cap2er encourages community engagement and trust by linking environmental action to social values. It helps maintain cohesion during crises by promoting welfare, fairness, and transparency in decision-making. Sustainable practices strengthen collaboration, access to support networks, and long-term stakeholder confidence.

This solution will support economic performance of the farm facing external challenges assessed because it promotes more efficient use of resources and cost savings. Cap2er helps optimize energy, feed, and land management, reducing long-term operating expenses. By aligning sustainability with financial planning, it mitigates risks from crises, regulations, and climate impacts.

Diagnose and Improve Your Farm Footprint

Health & Welfare: When the farm faces external challenges, its health performance will be supported by this solution, as it reduces pain, mortality, and the need for medication through the provision of good feeding. As a result, the farm becomes more resilient to external pressures.

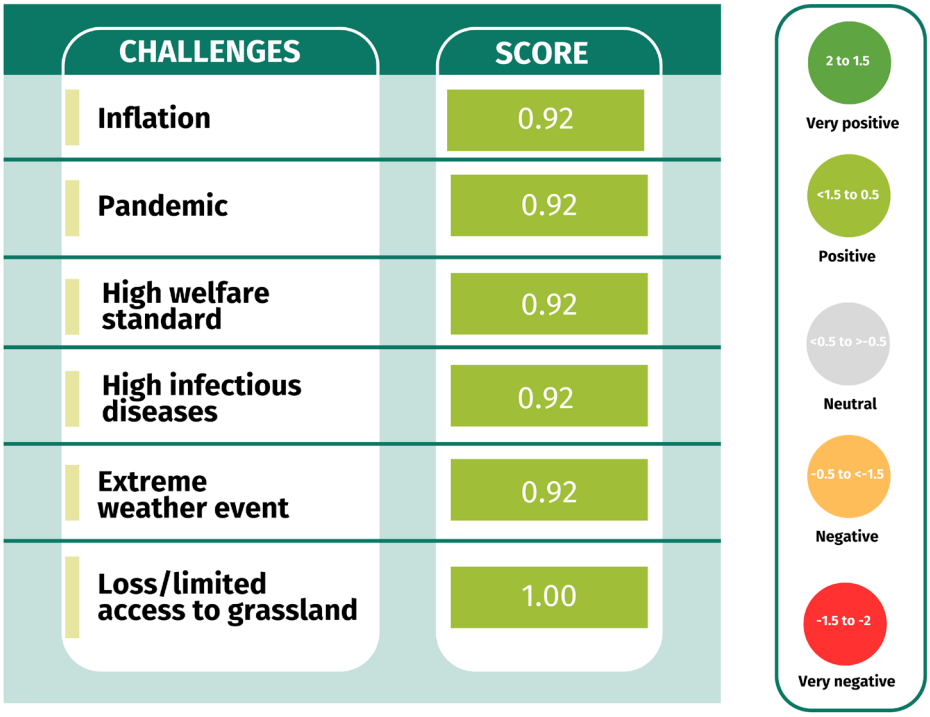
However, this solution may not directly enhance the welfare performance of farms facing all external challenges. While increased health resilience can be expected in the long term, the use of this solution does not necessarily translate into an improved emotional state of the horses or better living conditions when various external pressures are present.

Environmental Sustainability: This solution will support the environmental performance of the farm facing external challenges assessed because in overall it helps farmer to make better decisions in terms of environmental sustainability in climate change mitigation and adoption, halting biodiversity loss and water management even when farm faces challenges.

This solution will not impact land access or management performance of the farm facing external challenges assessed because is not relevant for getting access for grasslands and restrictions to protect sensitive areas can even decrease the available grassland area.

Diagnose and Improve Your Farm Footprint

How Can this Solution Help your Farm Cope with Specific External Challenges to Become More Resilient?



Inflation & Social Crises: This solution will support the global performance of the farm facing inflation because it drives efficiency in resource and energy use, reducing cost pressures. This solution encourages sustainable management that balances economic, social, and environmental priorities. It fosters long-term stability by lowering dependency on fluctuating input prices.

This solution will support the global performance of the farm facing pandemics because it promotes efficient and sustainable practices that secure continuity. This solution supports balanced resource management, reducing vulnerability to supply disruptions and rising costs. It reinforces animal welfare and social trust, maintaining cohesion during uncertain times.

Welfare & Diseases: This solution could support global performance of the farm facing infectious disease because it helps to enhance the health and resistance of animals.

This solution will also impact the global performance of the farm facing high welfare standards because it may help to maintain good feeding, especially during emission-free grazing, one of crucial aspects of equine welfare.

Diagnose and Improve Your Farm Footprint

Climate Change & Access to Land: Environmental challenge: This solution will support the global performance of the farm facing extreme weather events related to abnormally high temperatures and/or drought because Increased awareness of the ecological footprint and the use of tools such as Cap2er or Riders For Future can have positive long-term effects, as they help businesses become more efficient, sustainable and resilient to climate challenges. Such measures can be particularly helpful in planning for and preventing periods of drought.

In the short term, the financial and organizational burdens of switching to sustainable practices could place additional demands on businesses, especially in a situation where drought is already causing high costs and restrictions. The positive effects of such measures often only take effect in the long term, while the acute challenges posed by extreme weather events require immediate solutions.

Land access/management challenge: This solution will support the global performance of the farm facing loss or limited access to agricultural land because the combination of short-term emergency measures (e.g. purchasing additional feed) and long-term, sustainable strategies (e.g. introducing drought-resistant vegetation, water storage, optimizing resource consumption) would be ideal for minimizing the negative effects of drought and heat.

Cost-Benefit Analysis

Costs

Socioeconomics:

- **Initial costs**: Purchase price of the diagnostic tool, potential license fees for ongoing use.
- **Training and implementation**: Time and expenses for staff training, data collection, and analysis.
- **Adaptation/investment cost:** Possible investments in new technologies (e.g., stable equipment, feeding systems, water-saving measures).

Benefits

- **Increased efficiency & cost saving:**
  -Optimized feeding reduces feed waste, hay, concentrates, and water consumption.
  -Better pasture and fertilizer management reduces over-fertilization and manure disposal costs.
  -Lower energy consumption leads to reduced electricity costs in stables.
- **Funding opportunities & financial incentives:**
  -Access to government subsidies, EU CAP eco-schemes, and grants for sustainable farms.
  -Certification as an environmentally friendly farm may bring tax benefits and competitive advantages.
- **Improved decision-making:**
  -Data-based analysis instead of subjective assessments → fewer poor investments (e.g., unnecessary feed additives).
- **Enhanced reputation & marketability:**
  -Sustainable practices improve the farm's public image.
  -Eco-certificates can be a competitive advantage for riding schools, breeding farms, and boarding facilities.
  -Clients increasingly prefer sustainable operations.
- **Future security & risk minimization:**
  -Preparation for upcoming environmental regulations reduces risk of fines or costly retrofitting.
  -Adaptation to climate change and extreme weather improves long-term stability.
- **Knowledge and skills development:**
  -Staff acquire expertise in resource conservation and efficient farm management.
- **Strengthening regional value chains:**
  -More targeted purchasing (e.g., local feed) supports regional suppliers and shortens supply chains.

Diagnose and Improve Your Farm Footprint

Costs

Benefits

- **Attractiveness for employees:**
  -Sustainable farms are perceived as future-oriented and responsible, which is a plus when competing for skilled staff.

Health & Welfare:

- There are no direct negative impacts on equine health and welfare.
- Implementation requires effort but does not harm animal well-being.

- **Better nutrition and health:**
  -More precise feed planning based on data prevents underfeeding or overfeeding.
- **Less stress for horses:**
  -Sustainable farm management often provides a calmer, more natural environment.
- **Longer, healthier lives:**
  -Improved management practices lead to better health outcomes and welfare for horses.
- **Environmental improvements indirectly benefit horses:**
  -Conserving biodiversity and reducing pollution contribute to a healthier living environment for horses.

Environmental Sustainability :

- No direct environmental costs.
- Initial investments may be needed for eco-friendly infrastructure, but they pay off in the long term.

- **Resource conservation:**
  -Data-driven management helps reduce water, feed, and energy consumption.
- **Lower emissions and pollution:**
  -Sustainable feeding and energy use reduce CO_2 emissions.
  -Optimized fertilization prevents nutrient runoff, improving water quality.
- **Soil health and biodiversity:**
  -Natural grazing techniques promote soil stability, plant diversity, and reduce erosion.
  -Preserving ecosystems benefits local wildlife and contributes to overall environmental balance.

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Costs

Cooperation between Farms:

- **Coordination effort:**
  -Requires time for communication, joint planning, and possibly formal agreements.
- **Potential data-sharing concerns:**
  -Some farms may be hesitant to share operational data.

Benefits

- **Knowledge exchange:**
  -Farms can share best practices, benchmarks, and data insights to improve overall efficiency.
- **Cost sharing:**
  -Joint investments in diagnostic tools or shared training reduce individual expenses.
- **Stronger regional networks:**
  -Collaboration increases the visibility of sustainable farms and strengthens local value chains.
- **Improved market access:**
  -Farms working together can collectively market themselves as sustainable, attracting more customers and sponsors.

Additional Resources

Free Online diagnosis tool available in english, french, german, spanish, romanian, italian :

- CAP2ER: https://cap2er.eu/

Websites

- English
  - https://hub.bovine-eu.net/search/cap2er
  - https://moderndayfarmchick.com/2024/10/28/sustainable-agriculture-horses-how-horses-drive-eco-friendly-farming/
- German
  - https://ridersforfuture.com
  - https://digiagrifood.ch/digiblogs/cap2er-umweltleistung-von-landwirtschaftlichen-betrieben-berechnen
  - https://www.harms-pferdeprofis.de/pferdebetriebe-nachhaltig-bewirtschaften

Publications

- Baumgartner M, Kuhnke S, Hülsbergen K-J, Erhard MH, Zeitler-Feicht MH. Improving Horse Welfare and Environmental Sustainability in Horse Husbandry: Linkage between Turnout and Nitrogen Surplus. Sustainability. 2021; 13(16):8991. https://doi.org/10.3390/su13168991

Further Information

- Poster (in english): Microsoft PowerPoint - CAP'2ER®_EGF_v2
- English: https://ec.europa.eu/eip/agriculture/sites/default/files/2022-press-06-farmdata_cap2er_france_final.pdf
- German: https://www.hhl.de/app/uploads/2022/09/Executive-Summary-Studie-HHL-Nachhaltigkeit-Pferdesport-Partner-Pferd-2022.pdf

Funded by the European Union

This project has received funding from the European Union under Grant Agreement No. 101086551.

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Annex

Ideas to Animate a Workshop About the Solution

- Ask an advisor/company specialized in equine sustainability or farm management to sponsor the workshop.
- Find a model equine farm where the workshop can take place.
- Complete practical tasks and let participants actively try out the diagnostic tool to get to know the system.

Proposed Structure for the Workshop on CAP´2ER in Equines Farms

1. Introduction to CAP'2ER®
- What is CAP'2ER®?
- Key features and components of CAP'2ER® (data collection, ecological footprint assessment, recommendations).
- Types of sustainability diagnostic tools available for equine farms.

2. Benefits of CAP'2ER® in Equine Farms
- Data-driven decision-making for feed, pasture, water, and energy management.
- Potential cost savings through optimized resource use.
- Improved equine health and welfare due to better feed planning and stable management.
- Contribution to environmental sustainability and potential access to subsidies or certifications.

3. Practical Applications on Equine Farms
- Examples of how to integrate CAP'2ER® into everyday management.
- Demonstrating the workflow: data entry (feed, manure, energy use) and interpreting results.
- Strategies for implementing recommendations on real farms.

4. How to Choose the Most Suitable Approach
- Assessing the farm's needs and sustainability goals.
- Evaluating the resources needed (time, training, staff involvement).
- Considering available subsidies or partnerships.

5. Hands-On Demonstration
- Live demo of CAP'2ER®: data entry, result interpretation, and planning measures.
- Participants practice with demo accounts or example data.
- Discussion on how to adapt the tool to different farm types and sizes.

6. Maintenance and Troubleshooting
- Keeping farm data updated regularly.
- How to adapt when conditions on the farm change (e.g., herd size, pasture availability).

7. Case Studies and Real-World Examples
- Presentation of equine farms already using CAP'2ER®.
- Lessons learned and success stories (cost savings, environmental improvements, better horse health).

8. Cost Analysis and Return on Investment (ROI)
- Overview of initial costs, license fees, and training.
- Potential financial benefits: cost savings, subsidies, marketing advantages.
- Long-term value of sustainable certification and improved public imags, less environmental impact.

9. Q&A Session
- Open discussion of participant concerns, benefits, and implementation challenges.

10. Wrap-Up and Resources
- Summary of key workshop takeaways.
- Further resources (websites, suppliers, advisors).
- Contact information for support, partnerships, or funding opportunities.