CARINA Project: Lighthouses for Sustainable Farming

Horizon Europe Innovation Action
Project Number: 101081839

INTRODUCTION

The CARINA Project, funded by Horizon Europe, is revolutionizing agricultural practices by developing sustainable, diversified farming systems. By introducing camelina and carinata, two promising oilseed crops, CARINA aims to enhance soil health, increase biodiversity, and improve the resilience of farming systems in Europe and the Mediterranean.

A core component of the project is the Lighthouse Model, a network of innovation hubs where farmers, researchers, and stakeholders collaborate to test, optimize, and share best practices for sustainable cropping. These Lighthouses serve as knowledge-sharing centers that bridge the gap between scientific research and real-world farming applications.

WHAT ARE CARINA LIGHTHOUSES?

CARINA Lighthouses are regional demonstration and knowledge-exchange hubs designed to:

✅ Develop and test sustainable cropping systems that integrate camelina and carinata into existing farming practices.

✅ Collect real-world data from demonstration fields to evaluate the environmental and economic benefits of diversified cropping.

✅ Facilitate collaboration among the upstream sector with farmers, agronomist, advisors.

✅ Ensure practical knowledge transfer through hands-on workshops and field visits.

Through this structured, farmer-led approach, the CARINA Lighthouses provide a scalable model for sustainable agriculture, ensuring that best practices are identified, refined, and widely implemented across diverse agricultural landscapes.

WHERE ARE THE CARINA LIGHTHOUSES LOCATED?

The project established lighthouses across nine countries:

🇫🇷 France |
🇮🇹 Italy |
🇪🇸 Spain |
🇬🇷 Greece |
🇷🇸 Serbia |
🇲🇦 Morocco |
🇵🇱 Poland |
🇧🇬 Bulgaria |
🇹🇳 Tunisia

Each Lighthouse represents specifics farming environments, allowing for diverse testing conditions and ensuring that CARINA's recommendations are adaptable to different climates, soil types, and agricultural traditions.

HOW DO LIGHTHOUSES WORK?

CARINA Lighthouses operate through a multi-tiered approach, combining scientific research, field experimentation, and farmer-driven innovation.

1. Lighthouses meeting

📌 Frequency: At least one a year

📌 Participants: Farmers, agronomists, and advisors

📌 Objective: Identify challenges, opportunities, and tailored solutions for implementing sustainable cropping systems.

These workshops ensure that farmers' insights and experiences guide the development of practical, region-specific farming solutions.

2. Demonstration Fields

📌 Frequency: Continuous testing and monitoring

📌 Participants: Farmers, agronomists, and advisors

📌 Objective: Evaluate the performance of camelina and carinata under real farming conditions.

These large-scale trials allow for side-by-side comparisons of traditional vs. innovative cropping systems, ensuring that CARINA's recommendations are backed by field-proven results.

3. Lighthouse Meetings & Knowledge Sharing

📌 Frequency: Annual meetings

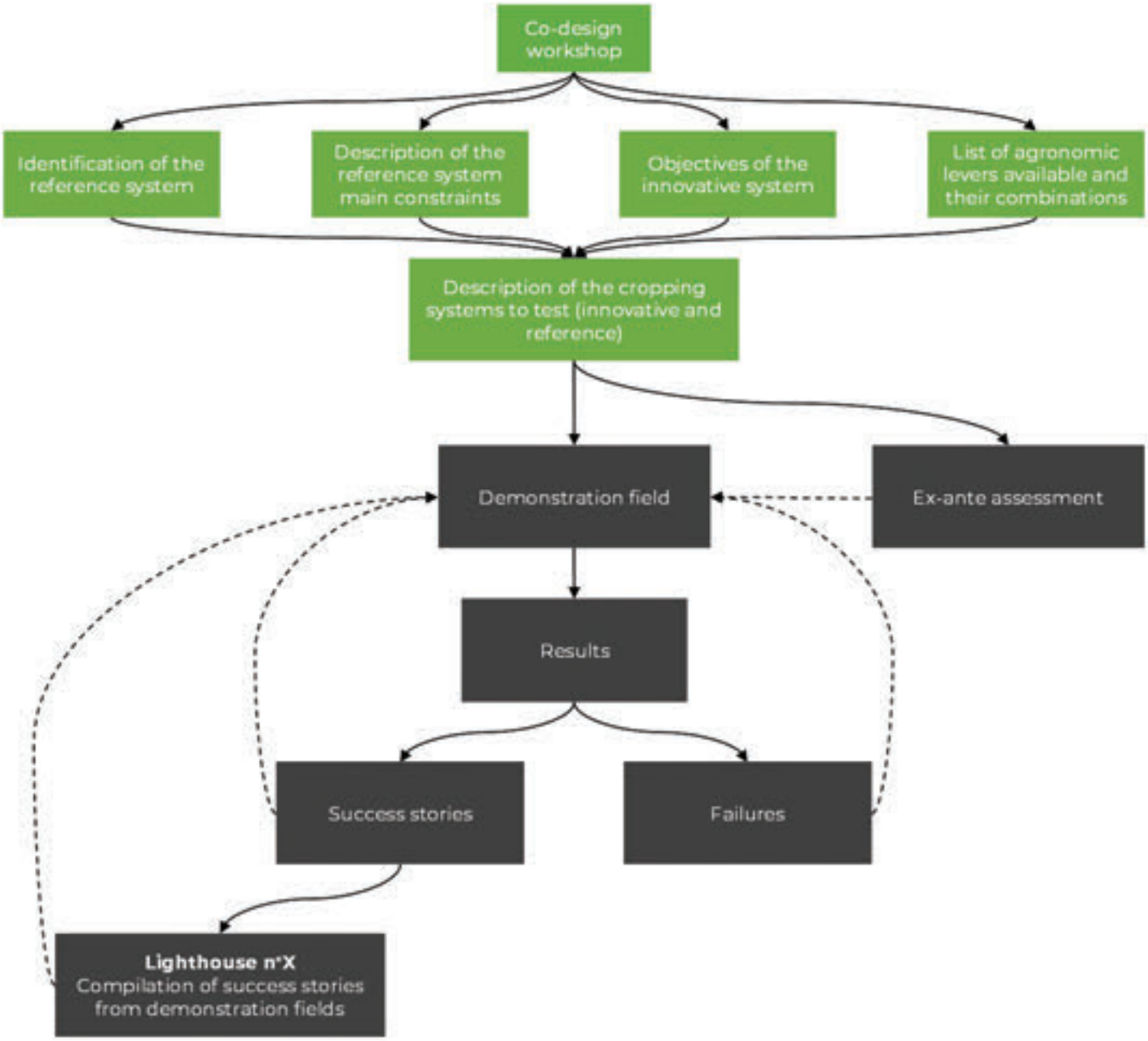
📌 Participants: Farmers, agronomists, and advisors

📌 Objective:

- Exchange lessons learned from field trials.
- Discuss challenges, success stories, and opportunities for scaling up sustainable practices.
- Living lab part based on real-world data.

Through these meetings, CARINA fosters a community of practice, ensuring that the knowledge generated in each Lighthouse is shared, refined, and widely implemented across different regions.

LIGHTHOUSE FUNCTIONING



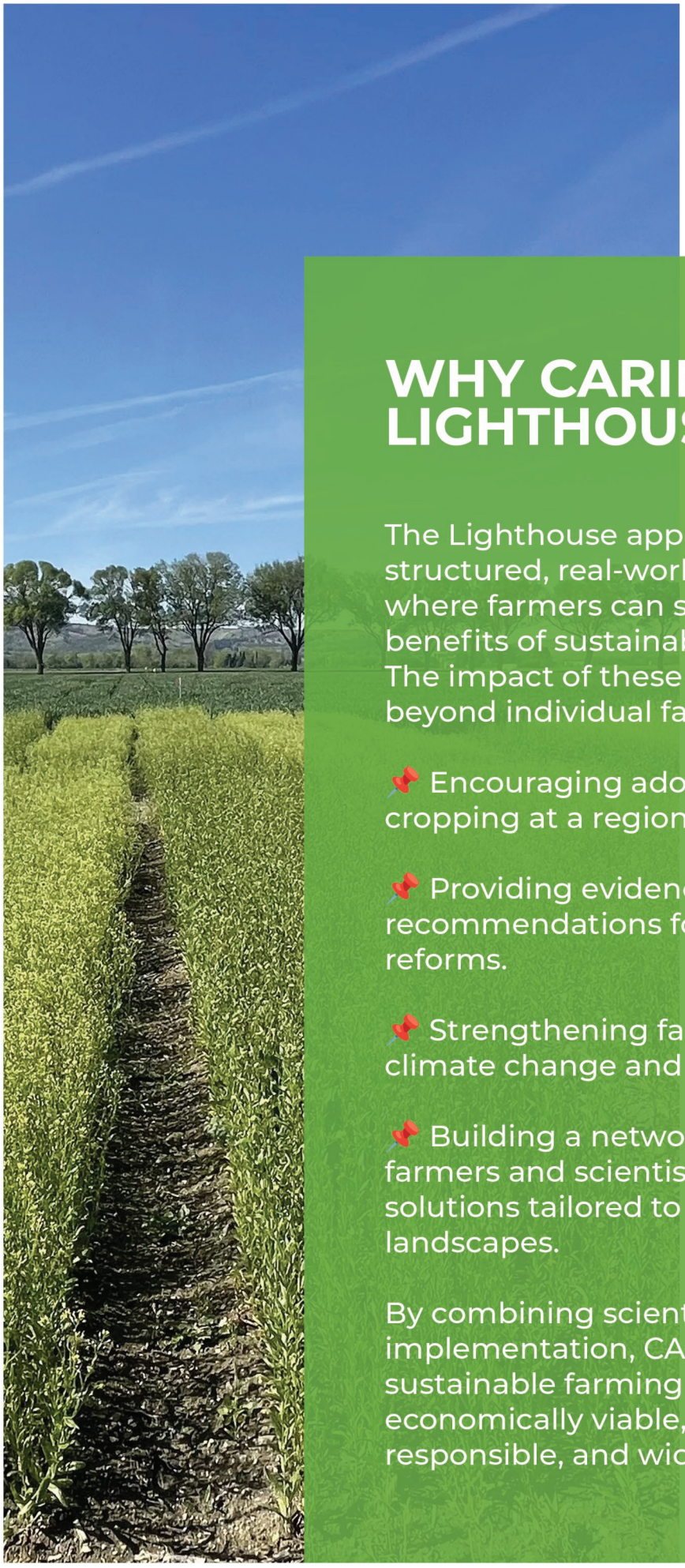
THE ROLE OF DEMONSTRATION FIELDS

Demonstration fields are the testing ground for CARINA's climate-resilient and sustainable farming systems. These fields allow for:

✅ Scientific assessment of camelina & carinata under different cropping conditions.

✅ Measurement of economic benefits for farmers adopting sustainable practices.

Data from these demonstration fields will help shape policy recommendations and guide farmers in selecting the most effective strategies for their land.



WHY CARINA LIGHTHOUSES MATTER

The Lighthouse approach provides a structured, real-world testing environment where farmers can see and experience the benefits of sustainable agriculture firsthand. The impact of these Lighthouses extends beyond individual farms by:

📌 Encouraging adoption of sustainable cropping at a regional and national scale.

📌 Providing evidence-based policy recommendations for future agricultural reforms.

📌 Strengthening farm resilience against climate change and economic pressures.

📌 Building a network of innovation where farmers and scientists collaborate to develop solutions tailored to specific agricultural landscapes.

By combining scientific research with practical implementation, CARINA ensures that sustainable farming techniques are economically viable, environmentally responsible, and widely accessible.

CONCLUSION

The CARINA Lighthouse Model is at the core of the project's mission to transform European and Mediterranean agriculture. By integrating scientific innovation, farmer-led experimentation, and collaborative knowledge-sharing, these Lighthouses are driving the future of resilient, sustainable, and productive farming.

As the project progresses, CARINA will continue refining its cropping systems, data collection, and knowledge dissemination, ensuring that its findings are practical, scalable, and impactful.

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