Interreg
North-West Europe
ICARE4FARMS
European Regional Development Fund

EUROPEAN UNION

LOW CARBON

Webinar

Solar Thermal Energy in agriculture

Supporting technology uptake and political incentives

13th June 2023

What is ICaRE4Farms?

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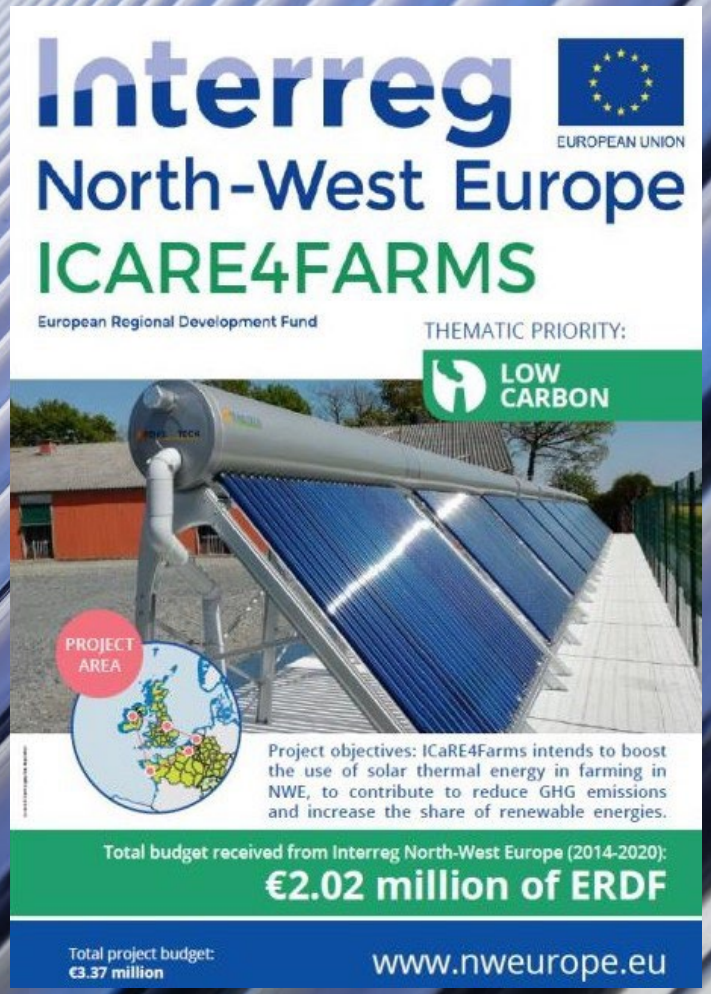

Overview of the ICaRE4Farms Project

In few figures:

- ICaRE4Farms (I4F) = INTERREG North-West Europe project (programme 2014-2020)
- Budget (ERDF): 2,05 Millions € / 3,4 Millions € (in total)
- Start Date = 26 September 2019
  End Date = 25 December 2023 (≈ 4 years)
  cf. 1 year of extension due to Covid & Lockdown hinderances

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Overview of the ICaRE4Farms Project

Project's Goals:

- Testing and demonstrating the efficiency of new generation solar thermal power plants in different agricultural activities
- Supporting the deployment of this new technology on farms in North West Europe to encourage the use of renewable energy
- Reducing greenhouse gas emissions
- Facilitating energy savings

=> ***Expected impact:*** in 10 years, 1000 operational STE systems in NWE region, saving 92 ktCO2 per year & creating around 200 jobs

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Overview of the ICaRE4Farms Project

Approaches & Methodology:

- 4 pilot sites for testing domestic hot water production applied in building and process heating (France x2 ; Netherlands ; Flanders)

- 4 agricultural sectors for STE applications
  - *Milk-fed Calf Farm* = Feeding (milk powder + water)
  - *Dairy Farm* = Cleaning of Milking Parlours & Tanks + On-farm processing (cheese, butter, etc)
  - *Pig Farm* = Building Heating
  - *Greenhouses* = Builiding Heating

Project Consortium

European Consortium:

- 5 partner countries: France, Ireland, Netherlands, Flanders, United Kingdom
- 8 partner entities:
  - Laval Mayenne Technopole (LMT / Lead Partner / FR)
  - Northern & Western Regional Assembly (NWRA / IE)
  - Fengtech (FT / FR)
  - Cornelissen Consulting Services (CCS / NL)
  - Association des Chambres d'Agriculture de l'Arc Atlantique (AC3A / FR)
  - Boerenbond (BB / BE)
  - Université Bretagne Sud (UBS / FR)
  - University of Lincoln (UoL / UK)

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Project Consortium

In other words:

- 1 business support association / incubator
- 1 start-up (providing the Next generation Solar Thermal panels)
- 1 technical studies office
- 2 universities
- 2 agricultural organisations
- 1 regional assembly

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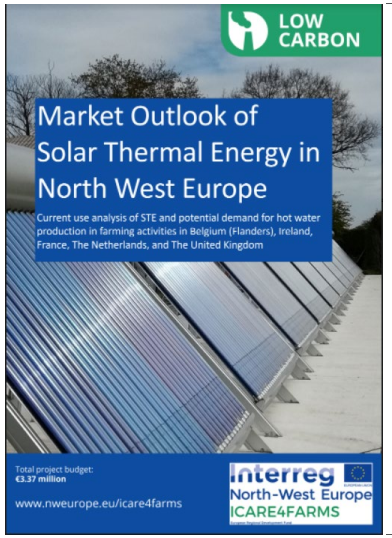
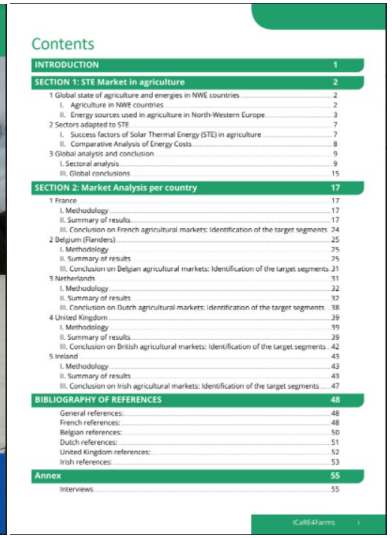
ICaRE4Farms Project Activities

Planned Actions & Initiatives

- Market Analysis (Available online at: https://bit.ly/3wKWlwx)

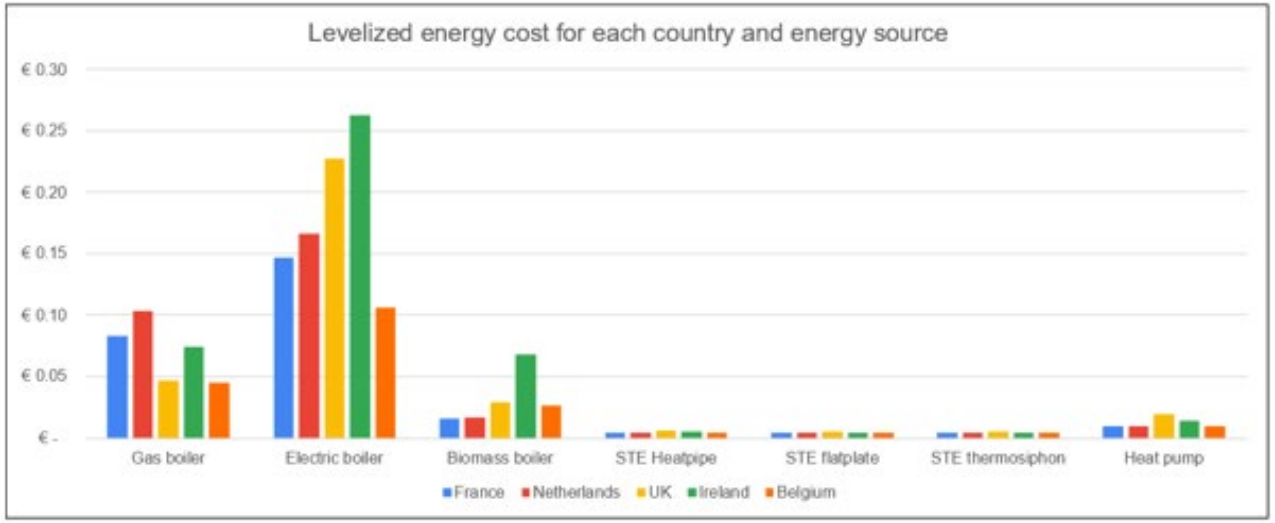




ICaRE4Farms Project Activities

Planned Actions & Initiatives

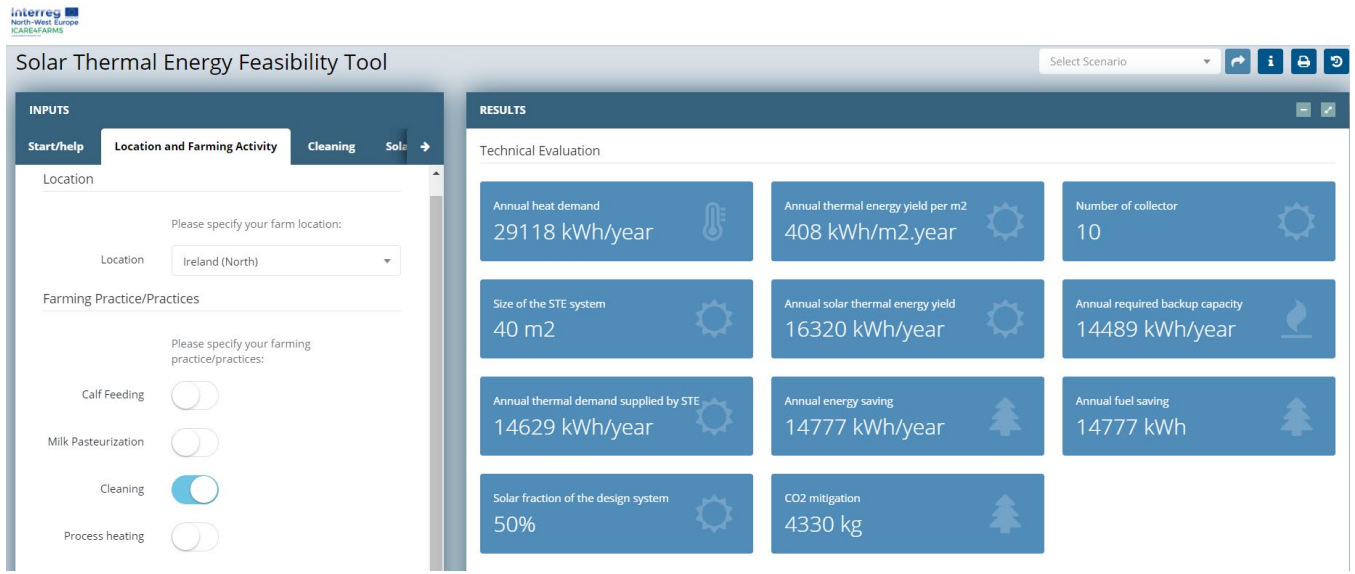
- Technology Assessment Tool



ICaRE4Farms Project Activities

Planned Actions & Initiatives

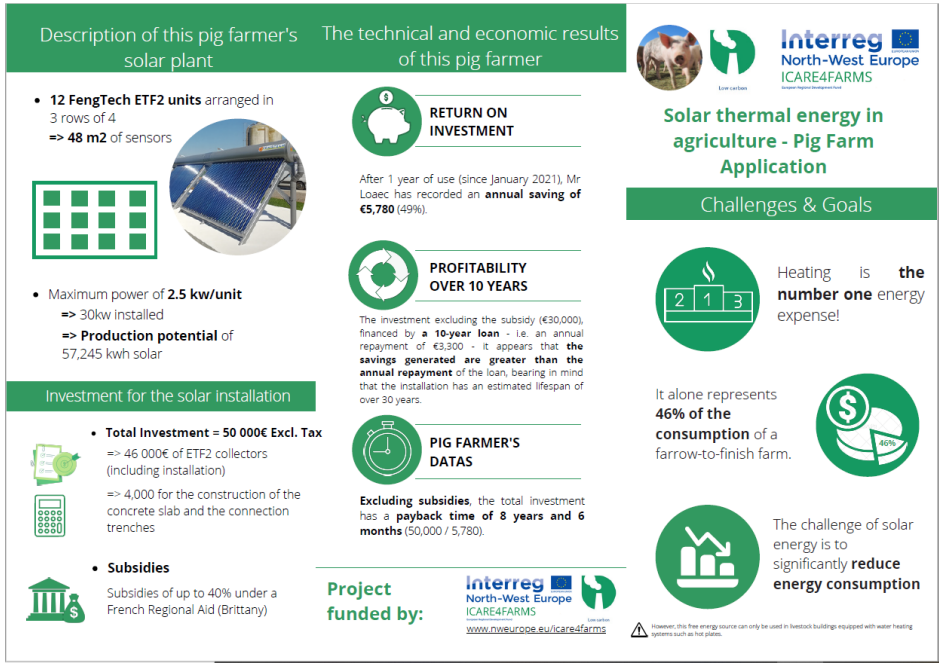
- Feasibility Tool (Achieved) https://app.molnify.com/app/ccssolarfeasibilitytool



ICaRE4Farms Project Activities

Planned Actions & Initiatives

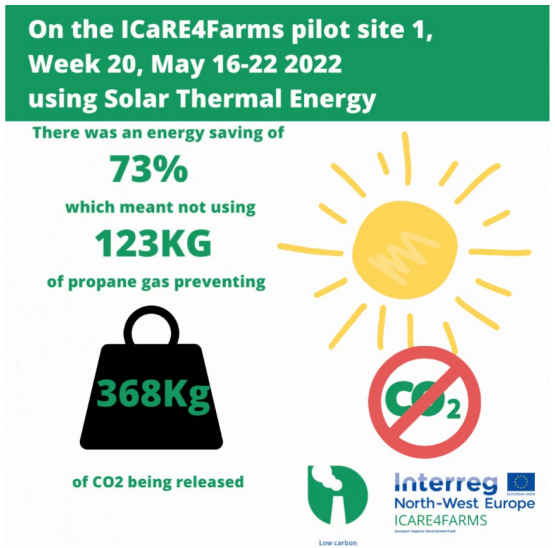
- Case Studies (Achieved / https://bit.ly/3G4ZI6O)



ICaRE4Farms Project Activities

Planned Actions & Initiatives

- Measurements and collection of data on site



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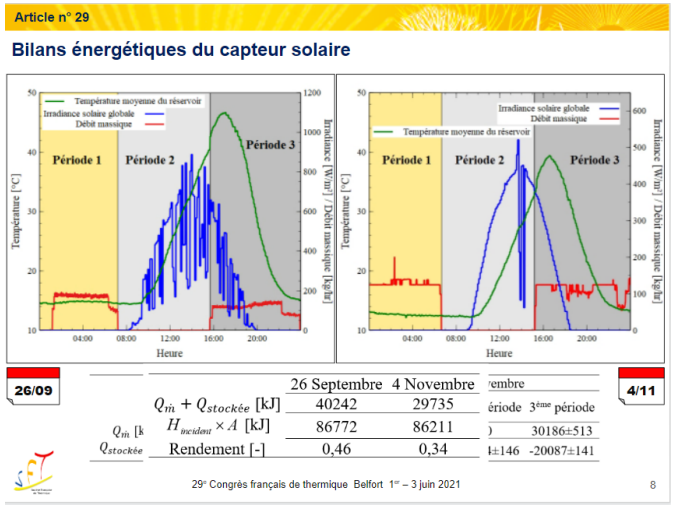
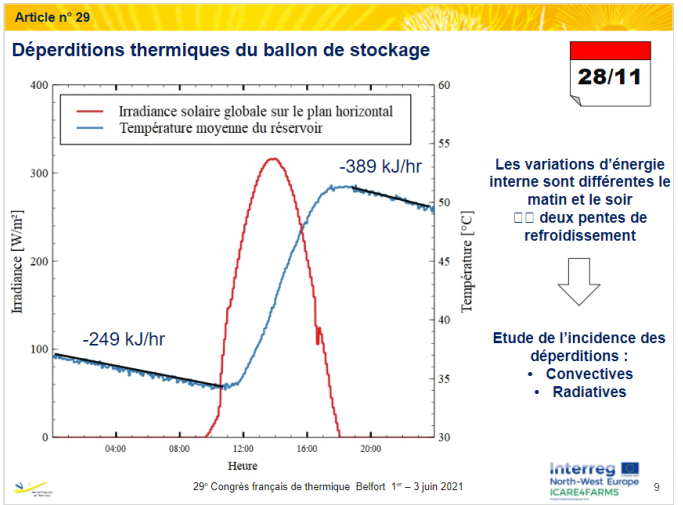
ICaRE4Farms Project Activities

Planned Actions & Initiatives

- Modelisation of functioning





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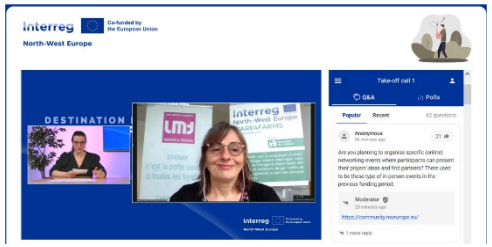


ICaRE4Farms Project Activities

Planned Actions & Initiatives

- Several sets of events
  - Showcases, with end-users, distributors and installers
  - Training actions upon the Feasibility tool (installers)
  - Market Development Events, with farmer associations & chamber of agriculture/commerce
  - Awareness-raising & Information Campaigns, with renewable energy associations & local utilities
  - Participation in policy events, with regional, national and European stakeholders & polciy-makers
  - Info-days & Dissemination events, with media & local stakeholders
  - Participation in conference and other scientific events

ICaRE4Farms Project Activities

Planned Actions & Initiatives

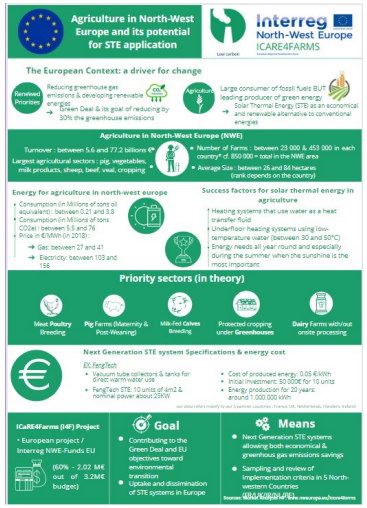
- Calls for Application
  (Online at: https://bit.ly/3G4ZI6O)
  - Application Form EN:
    https://bit.ly/3fXocUD
  - Term of References EN:
    https://bit.ly/3NROsfV
  - Also Available in French & Dutch

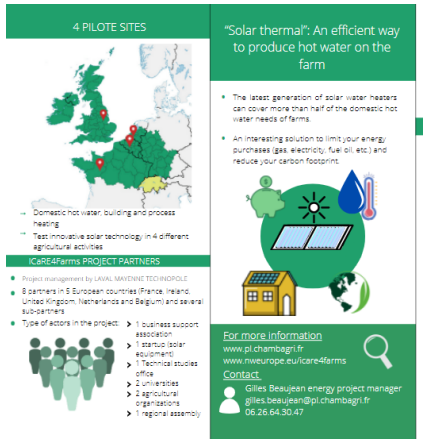
=> The Submission & sSelection process has been succesfully halted after retrieving our 17 complementary sites

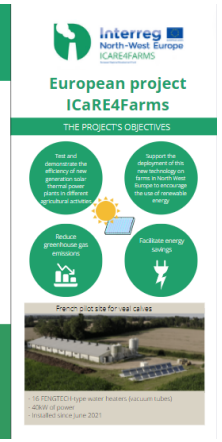
ICaRE4Farms Project Activities

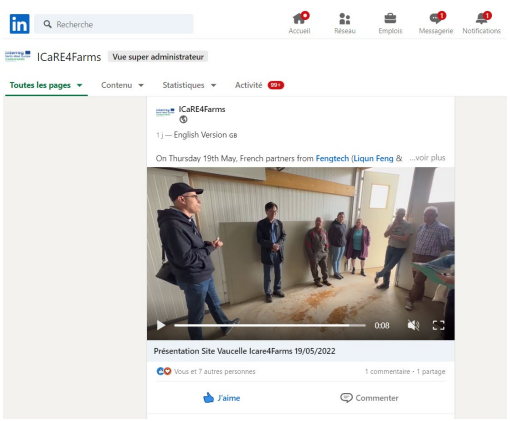
ProPlanned Actions & Initiatives

- Communication & Long-term Perspectives (factsheets, community building, etc)









Thank you for your attention !!!