

Experiences from the Swedish Case

“Creation Of new value chain Relations through novel Approaches facilitating Long-term Industrial Symbiosis”

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MSc. In Environmental Studies and Sustainability Science

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CORALIS

Industrial Symbiosis
in Energy Intensive Industries

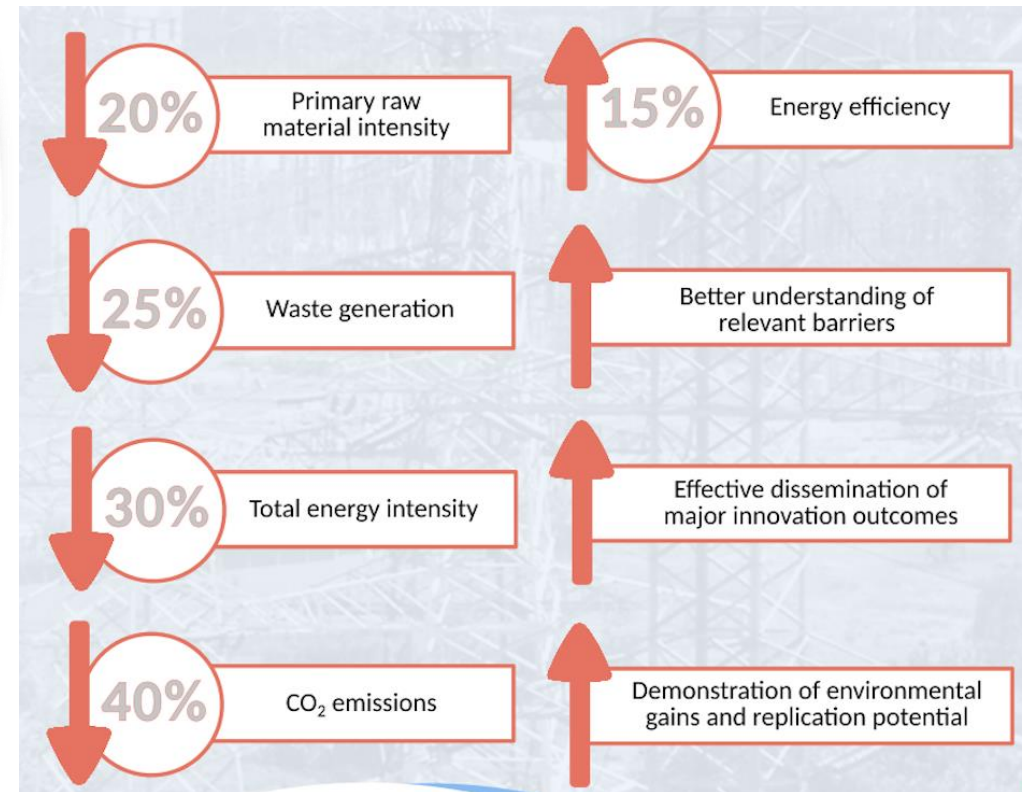
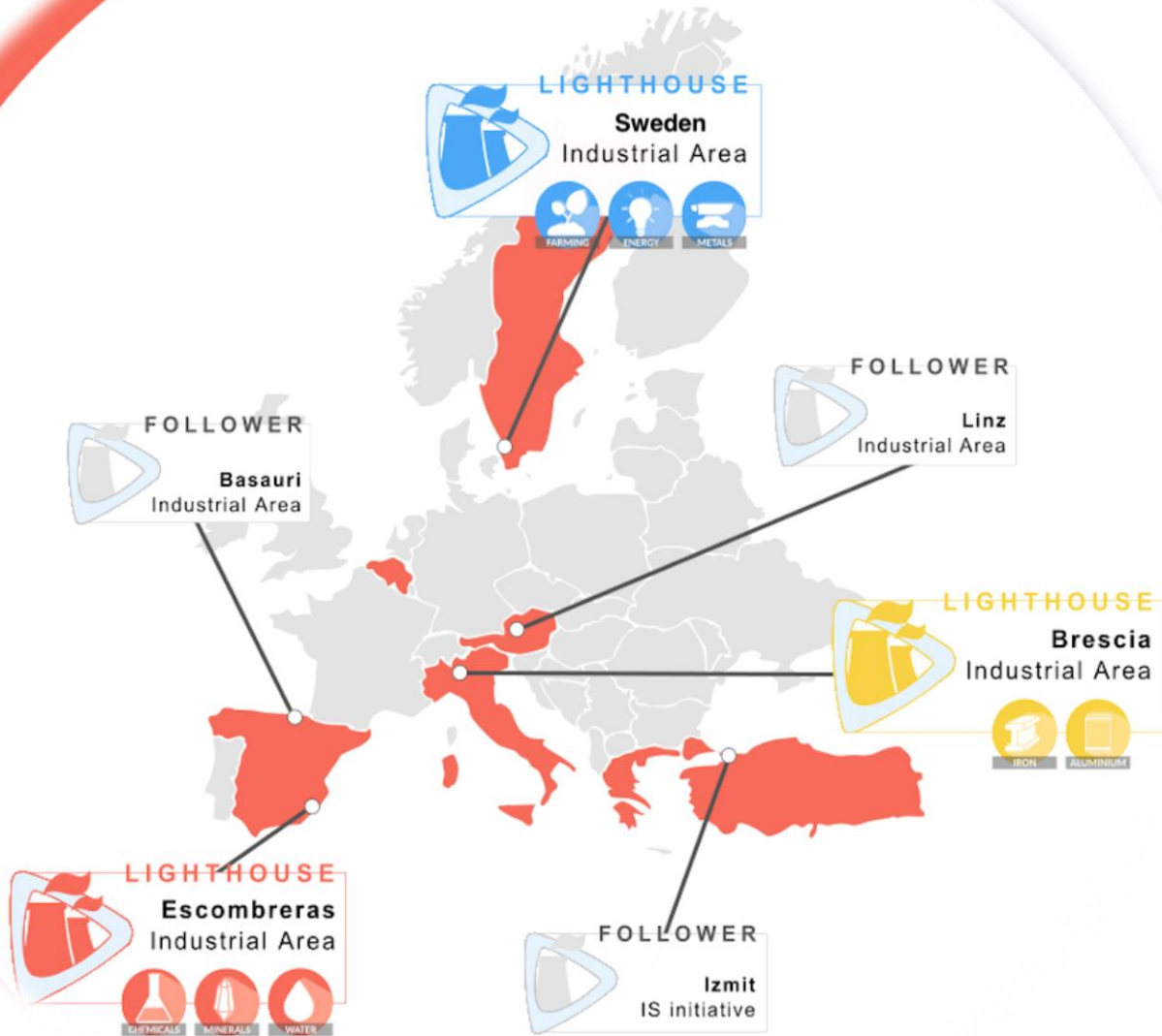


This project has received funding from the European Union's Horizon 2020 research and innovation programme

Agenda

1. CORALIS overview
2. WA3RM
3. **Regenergy** Frövi by WA3RM and Energy Efficiency
4. Challenges
5. Conclusions and recommendations

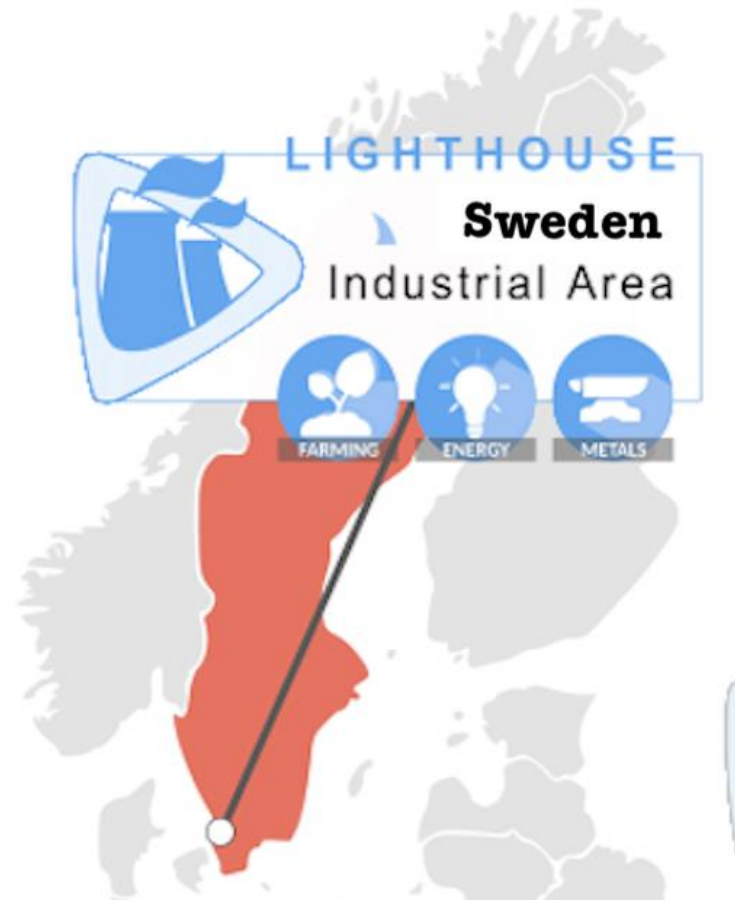
Overview



Consortium



WP 6 – Demonstration activities in Sweden. Participating partners



CORALIS contribution to WA3RM's work

- THE BIG PICTURE in numbers

Start date: **1 October 2020** End date: **30 September 2024**

Duration: **48 Months**

Total budget: **EUR 22.72 M** EU contribution: **EUR 17.99 M**

EU contribution to WA3RM's project: **EUR 3.3 M**

WARM

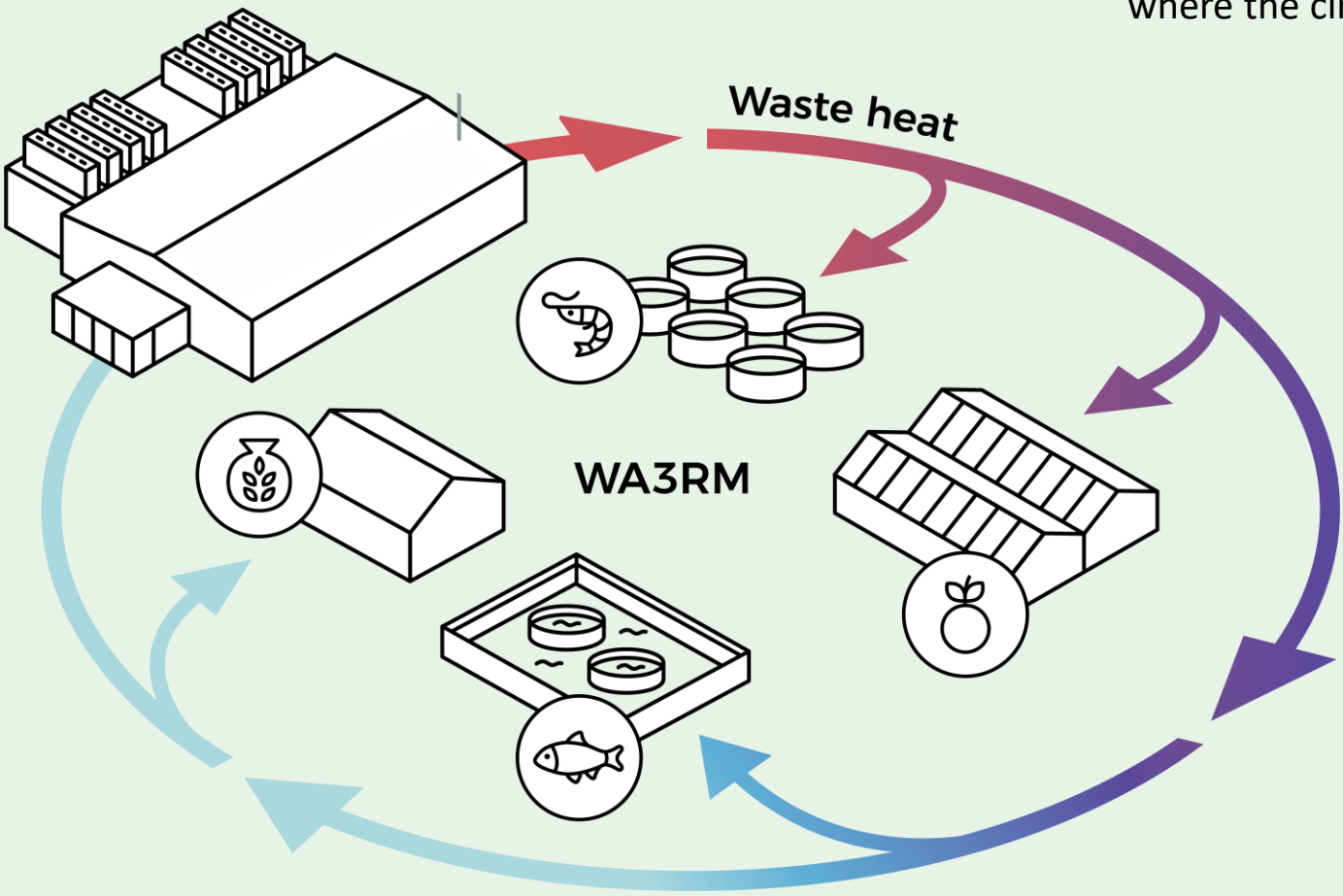
Bringing waste to life

IN SHORT


**We recycle industrial waste
streams and regenerate them
into life**

This is how it works

We reuse surplus heat and CO₂ from local industries for food-producing businesses – where the circular element is dominant

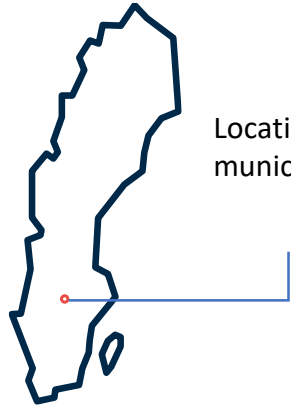


Our history



WA3RM has its origins from one of the most advanced scientific facilities in the world – the European Spallation Source (ESS) – where WA3RM’s founders were responsible for the development of the energy system.

Regenergy by WA3RM and EE



Location: Lindesberg municipality

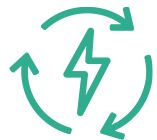


Collaboration with BillerudKorsnäs



Greenhouse size: 10 hectares

Prawn farm size: 10 hectares



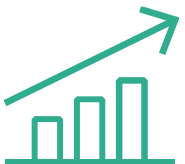
50 GWh

Recycled energy: 50GWh per year



-12,515

Total reduction of carbon dioxide: 12,515 tonnes per year



Total investment and annual growth: SEK 1250/343 million



Annual production of vegetables: 8,000 tonnes

Annual production of prawns: 4,000 tonnes



220

Number of new full-time jobs: 220

Challenges



- Municipal, regional, national engagement



- Technology readiness levels (TRL) adapted to the right application



- Missing access to relevant financial mechanisms

Conclusions and recommendations



WARM | There is no time to waste

Any questions?

**Thank you for
your attention!**

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