

Project name:

“Energy from Algae/Bio-solar-safe: tapping energy from green cells”

Which of the S.I. Fields of Action best describes your project:

2. Production and consumption of energy from renewable sources.

- Section A: Addressing challenges / barriers related to specific sustainable energy technologies.
- Section B: Bringing forward innovative approaches to sustainable energy promotion and management.

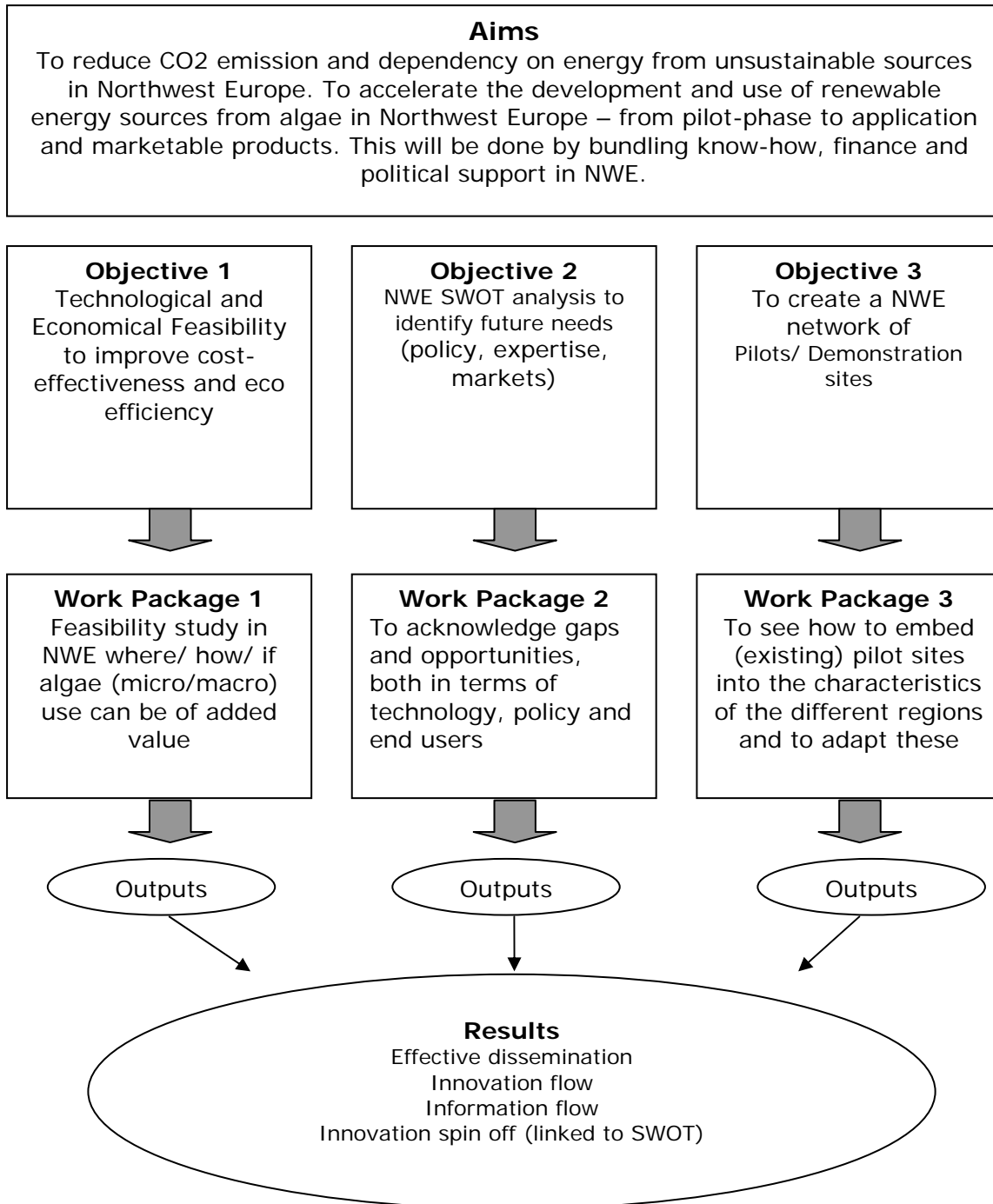
General aim of the project:

- To reduce CO₂ emission and dependency on energy from unsustainable sources in Northwest Europe.
- To accelerate the development and use of renewable energy sources from algae in Northwest Europe – from pilot-phase to application and marketable products.

Specific objectives:

- Technological and Economical Feasibility to improve cost-effectiveness and eco efficiency.
- NWE SWOT analysis to identify future needs (policy, expertise, markets).
- To create a NWE network of Pilots/ Demonstration sites.

Link between objectives and activities



Project Activities:

1. Feasibility study in NWE where/ how/ if algae (micro/macro) use can be of added value.
 - Select algae strains for CO² absorption and remediation.
 - Case studies on the technological and economical feasibility (including Life Cycle Analysis).
2. To acknowledge gaps and opportunities, both in terms of technology, policy and end users.
 - State of the art and strategic focus.
 - Knowledge gaps (Legal issues & Access to knowledge).
 - Technological gaps (Production technology & Production process).
 - Technological Opportunities.
 - Environmental impact assessment (including public attitude).
 - Catalogue sustainable sites.
3. To see how to embed (existing) pilot sites into the characteristics of the different regions and to adapt these.
 - Test build on existing technologies.
 - Network of existing test sites or test site with a NWE wide ownership.

Expected results:

- Gap analysis (capability, knowledge, implementation, legislation).
- Roadmap for progress, focussing on developing actions in specific areas where partners feel concerted EU action would be beneficial.
- Complement and add value to existing EU funded projects.
- Contribute to end use development.
- Make a real difference to energy production, consumption and impact on a North West Europe scale.
- Effective dissemination (Innovation flow & Information flow).
- Innovation spin off (linked to SWOT).

Possible total budget and ERDF sought:

Still to be defined according to the number of partners and the concrete action plan.

Partners involved at this stage:

During the workshop in November 2009 interest was expressed from partners in all eligible countries: DE, BE, NL, UK, CH, IE, LU, FR. Approximately 20 organisations have already confirmed their wish to participate in a strategic project. There is also a possible interest from Turkey, which would be able to do measurement and engineering.

Further partners sought:

The project development is an open process. The interest of the research sector is already high; further partners required in public administration, policy makers and associations of industrial interest.

How are the partners going to jointly benefit from this transnational cooperation project?

By setting up a NWE-project, partners will benefit from financial and political support. They will further be able to exchange their know-how/experiences and jointly elaborate best-practice models (by implementing pilot actions) which may then influence their respective national policy. In addition, the partners are often confronted with the same (EU-) requirements and therefore are most likely to welcome a European approach to these challenges.

How is your project relevant to the identified S.I. Fields of Action?

This project is fitting with the second Strategic Initiatives field of action and especially with the parts A (addressing challenges / barriers related to specific sustainable energy technologies) and B (bringing forward innovative approaches to sustainable energy promotion and management) of this field as it seeks to reduce CO2 emission and dependency on energy from unsustainable sources in Northwest Europe by accelerating the development and use of renewable energy sources from algae.

How does your project display a high degree of transnationality?

- The project envisages gathering relevant partners across North West Europe who will jointly elaborate actions which have to impact a large part if not the entire NWE area.
- There seems to be a real scope for improved communication, coordination and cooperation among the key actors in the field across NWE, which can help the critical mass for economic viability.
- The NWE territory presents specific suitability in terms of climate, extensive coastline and concentration of industrial areas to support the implementation of a transnational cooperation.

What is innovative and original about your project?

- The topic is new for the NWE INTERREG transnational programme; just one INTERREG cross-border programme is funding an extensive network on the subject.
- It is a relatively new area of research, very little of it is close to being market-ready, and the project will contribute to that. Some relevant projects are currently running and it will be important that the project builds on their work where results are known.
- A critical focus is identified on developing an algal energy strategy for NWE.

What strategic impact is your project likely to have?

- This technology could improve the robustness of the energy supply.
- The new Renewable Energy Directive will set targets for use of renewables and the Member States have to report on their activities. This project would help the NWE States to make progress in this direction.
- Development will free up land for sustainable food production and other uses.
- Decentralisation and possible diversification of energy.
- Delivery of new sustainable and local sources of fuel and possibly high economic value co-products, depending on research outcomes and if the scales of each are compatible.

Is your project a follow-up to a previous project? If yes, how does it build on previous results?

Not directly. It should build on finished and ongoing projects which are funded under other programmes.

If applicable, which other funding Programmes or EU Policies might be relevant for your project?

A mentioned above, several INTERREG projects on this topic are already running (Atlantic Area, North Sea, and IVA Scotland-Ireland-Northern Ireland, ESPON), as well as one project in the FP7, three projects in LIFE+ and several new initiatives are emerging from the EU Strategic Energy Technology Plan, such as the European Energy Research Alliance and the European Industrial Initiative on bioenergy technology development. Various national programmes are also supporting research.

Project idea source

- NWE Strategic Initiatives step 1 workshops report, August 2008
- Strategic Initiatives Working Group (SIWG) PI proposal March 2009
- SIWG report, May 2009
- ESPON ReRisk report of regions at risk of energy poverty, March 2009
- Several relevant conferences (Biofuels International Expo and conference, Amsterdam, May 2009; Bundes-Algen-Stammtisch, Cologne, June 2009; European Algae Biomass Association launch conference, Florence, June 2009; Bioscience for Industry Knowledge Transfer Network event, Bristol, early 2010)
- Strategic Initiative Workshop, Brussels, 16 November 2009