

Reduced Energy Consumption in Plastics Engineering (RECIPE)

Case study contact	Smithers Rapra Technology Ltd
Programme	Intelligent Energy Europe - 2004 call
Area	SAVE
Total Budget	€894,376
EC Contribution	€447,188
Consortium	8 partners from 6 Member States with UK coordinator
Project duration	36 months

RECIPE aimed to provide the European plastics processing industry with the knowledge, justification and tools needed to reduce their energy consumption through the implementation of best practice and the introduction of new technologies. This industry comprises more than 27,000 companies (more than 80% SMEs) employing over one million people and with total sales of over €100 billion. A 10% reduction in energy consumption across the industry would result in an annual reduction in CO₂ emissions of more than 3 million tonnes. RECIPE produced:



- a European Best Practice Guide for the plastics processing industry in 6 languages, distributed in printed form and made available to download from the project website.
- an interactive toolkit to enable companies to evaluate energy consumption and look closely at individual processes within their plant. It provides guidance on efficiency and highlights key plant areas where the most substantial energy and costs saving can be made.
- a "Cost of Ownership Model" to enable processors to calculate the cost of operating a piece of equipment over its projected lifetime, based on energy efficiency and projected usage.

RECIPE also benchmarked energy usage in plastics processing companies across Europe in 2005 to establish where variations exist from "typical" usage and understand how companies view and manage their energy consumption.

The coordinator

Smithers Rapra Technology, previously known as the Rubber and Plastics Research Association has 30 years experience of providing information services to the polymer industry, serving a global academic and industrial market with rubber and plastic, chemical, pharmaceutical, eco toxicology and life-science related knowledge, information products and events.

Role in project

Smithers Rapra coordinated this project. Smithers Rapra has previous experience of coordinating both national and European (FP6) projects, but RECIPE was the first IEE project in which they had participated. FP6 project experience was in the NMP and CRAFT programmes, and RECIPE was their first experience in the energy sector.

Proposal preparation

Smithers Rapra's previous experience as a coordinator was found useful when preparing the RECIPE proposal, but it was still a major task. Even with a well established network of potential partners on which to call, it took at least 20 days of solid work to pull the proposal together. None of these costs are recoverable, and the whole process is highly competitive, so a proposal should be regarded as very speculative. This means that one should thoroughly research the viability of the idea before investing too much time and effort in a proposal. Smithers Rapra discussed their ideas with potential partners, both to test the concepts and seek buy in and commitment from others.

The selection of partners is seen as a key factor in success. The partners must be committed, and have something to contribute to the project. In RECIPE, most of the partners had a direct interest in the plastics industry but one brought the necessary energy expertise.

Project implementation

The partners must know exactly what is required of them. This not only applies to their role in the project but how the project is to be managed and what they need to do to comply with the reporting requirements. These can be quite detailed and some SMEs may not really know what to charge as their hourly rate for example. Smithers Rapra put together a project handbook which set out in detail all that the partners needed to know. Most of this was taken from the Commission web pages, but brought together in a user friendly way to allow the partners to understand readily the deadlines, the timesheets, financial requirements etc. This greatly facilitated the management of the project, and the basic template has now been used in other projects, including the follow up ENER-Plast project (for details of this project go to <http://www.enerplast.eu/pgm/welcome.html>). Smithers Rapra also took care to maintain constant communication with their partners throughout the project. This included keeping partners fully informed about work packages in which they were not directly involved so that all members of the consortium had a sense of ownership of the project as a whole.

Smithers Rapra did not experience any difficulties with their partners on the RECIPE project, which they attribute to the careful selection of their partners, the contribution of the project handbook and the maintenance of good lines of communication. Nor did RECIPE experience any particular problems with the Brussels bureaucracy, although they would like to see the whole process of submission, selection and contract signature speeded up.

The only issue which caused some difficulties was written English. All the partners spoke very good English, but the written English was not always of a standard suitable for publications. This meant that Smithers Rapra was involved in editorial work that was not fully foreseen when putting the proposal together. It is also a matter that may have to be approached with some tact; partners are often (justifiably) proud of their competence in English and may not take too kindly to editing. This task naturally fell to Smithers Rapra as coordinator, but their experience with other projects is that UK partners may also be asked to revise texts to improve the English.

Smithers Rapra were keen to coordinate this project since this was their idea in the first instance, and the leadership role allowed them to drive the project in the way they wanted. They are not averse to participating as a partner, but have previously found that the coordinator can sometimes let things slip. RECIPE was too important to their strategy to take the risk.

The positive experience in the RECIPE project encouraged Smithers Rapra to lead a further IEE project (ENER-Plast). This develops the RECIPE project idea further, and some of the experience gained and the tools developed (especially the project manual) in RECIPE have been applied in ENER-Plast.

Key benefits

Smithers Rapra serves the polymer industry and so does not seek benefits for itself, but rather for the industry. The Best Practice Guide, toolkit and the “Cost of Ownership” Model produced by RECIPE have proved to be of considerable assistance to the polymer industry in Europe, and Smithers Rapra is more than satisfied with the outcomes. The Best Practice Guide could not have been produced using UK resources alone, and cooperation at EU level has allowed Smithers Rapra to develop their ideas to the full. At a more parochial level, the success of RECIPE has enhanced the profile of Smithers Rapra, not just in Europe but globally. Enquiries have been received from countries as far afield as New Zealand, Canada, Brazil and the USA. Some of these enquiries have come from other sectors; RECIPE may be a useful model for other industries in which energy consumption has been given insufficient attention.

Advice for anyone submitting a proposal and delivering a project

- Do your research thoroughly before submitting a proposal. Test your idea with potential partners to see if it will ‘fly’. Putting in a proposal is a costly and speculative business – don’t waste your time on ideas that are not enthusiastically received.
- Do not underestimate the workload if you are coordinating the project.
- If possible, gain experience as a partner before trying to coordinate a collaborative European project.
- Ensure all partners are committed and have something to contribute to the project.
- It is better to work with those you know, but this is not always possible. Don’t work with new partners without doing due diligence tests – you are signing up to work with them for several years.
- If you are the coordinator, give serious consideration to production of a project manual, so that all know exactly what is required of them.
- Work on maintaining good relationships in the consortium. Ensure constant lines of communication and inform everyone about progress, especially on work packages where they are not directly involved.
- As a UK partner or coordinator, be prepared to accept an additional role in revising the text provided by partners who have a different mother tongue.

Key summary points

- Do the groundwork thoroughly. In particular, ensure that the idea behind the project has the full support and commitment of your partners.
- Ensure that the project has the ‘buy in’ of all the members of the consortium, and that all have a real and significant contribution to make.
- Work at maintaining the partnership through good lines of communication, ready flows of information and ensuring that all know exactly what is expected of them. A project manual can be a great asset.
- Recognise that you are in the fortunate position that the working language is your mother tongue and be prepared to assist others in the consortium, especially in preparation of texts that are to be published.
- It will be hard work, but try to enjoy it!

For more information about the RECIPE project, go to <http://www.eurecipe.com/>

For more about Smithers Rapra, go to www.rapra.net

This case study was produced in conjunction with Smithers Rapra Technology Ltd and focuses on their experience of preparing a proposal and participating in an IEE funded project. The views are those of the participant and not the Executive Agency for Competitiveness and Innovation nor the Energie Helpline UK. If you have queries on the IEE Programme please contact the Helpline.