



Partner search form

To facilitate the partner search, please fill in the form below and send it back to the ERRIN Secretariat

Communicatio@errin-brussels.org

Completed form should not exceed 3 sides of A4. Thank you!

1. **Which specific Call in which Community Programme is your project idea relevant to?**

FP7-SME-2007-1 Research for SMEs – Closure date 4 Sept. 2007

2. **Project Title**

Please give a brief outline of your project idea according to the following headings:

a. Objectives of the Proposal:

To constitute a synergic cluster of SMEs and R&D centres concerning new recycled polymer materials, from the selection process among post-industrial and post-costume plastic materials, to the compounding and transformation into certain injection moulding polymer grades; as well as the design, productive solutions and testing of manufactured items.

b. Relevance to the Call:

Research for the benefit of specific group of RTD performers and SMEs is the funding scheme of the FP7-SME-2007-1 call. The topics covered by the present research project fit perfectly into this call which is open to all research fields.

Today an aim of the European manufacturing industry is the integration of customers and users into the different phases of the value added chain. Moreover customised products that fulfil several criteria such technical functionality, cost, quality, safety and environmental soundness are required.

That is to allow manufacturers to create new business opportunities and contribute to the environmental sustainability, by means of products from qualified plastic recycled materials, manufactured on demand.

The new added value products, made by the new polymer materials, should be customized particularly on behalf of some final user in the automotive industry and the consumer supply commercial chains.

c. Type of partnership: *(specify the planned consortium)*

The following R&D partners are involved:

1. Dip. Meccanica e Tecnologie Industriali – Università di Firenze (Italy) [DMTI-UNIFI]
2. Dip. Chimica e Chimica Industriale – Università di Pisa (Italy) [DCCI-UNIFI]
3. Royal Institut of Technology KTH – Polymerteknologi (Sweden) [to be contacted soon]
4. [public/private research centres from other countries]

The initial group of participant SMEs are:

1. MPT-Plastica s.r.l (Pisa –Italy) [mould design and construction]
2. Mac-Design s.r.l (Lucca- Italy) [styling and prototyping]
3. ENSECO SP.Z.o.o (Warszawa - Poland) [mechanical design and engineering]
4. I.T.I. Poland SP.Z.o.o (Gniewkowo - Poland) [recycling materials and compounding]
5. [partner active in the injection moulding advanced techniques and/or in compound modifications]
6. [idem]

- d. Scientific and Technological Excellence/ State of the Art/ Other relevant excellence:

The research should focus on the integration of new polymer materials coming from the recovery and transformation of post-industrial and post-consume plastics, into the production model of the plastic manufacturing industry.

That involve:

- compounding (*compatibilising*) technology assessment in order to pursue the post-industrial and post-consume polymer up-cycling
- quality assessment of the recycled plastics
- scientific research on the phase structure and properties of the recycled polymer blends

- e. Impact on European level:

Establishing an European network on the enabling technologies for polymer recycling, compounding and manufacturing, within the frame of the Integrated Product Policy of the UE.

3. Organisation Profile

- a. Nature of your organisation: *please give a brief description of your organisation*

The MPT-Plastica s.r.l., the MAC-Design s.r.l , the DMTI –UNIFI and the DCCI-UNIFI have been partners in different industrial research temporary consortiums, promoted by the Tuscany Regional Government in the last two years.

The MPT-Plastica is acting on behalf of the other partners, as a leader of the present European research project.

The research activities are mainly devoted to the PET post-consume and post-industrial recycling, compounding with compatibilisers (under patent by the

DCCI-UNIFI) in a twin screw extruder and injection moulding. Our primary objective is to help in the bulk modification of PET and other post-consume and post-industrial polymers, in order to improve the recycled polymer aesthetic and technical properties

- b. What would be the added value of having you as a Project partner?
The added value we can bring, as a project partner, to an existing organisation will certainly be the acquisition of a research team with a scientific as well as industrial background.
- c. What kind of partners are you looking for?
We are looking for SMEs partners from one or two more countries in Europe, with a high level background in the injection moulding advanced techniques and/or in compound modifications, in order to constitute an "excellence network" in the mentioned research field.
Eventually another RTD performer, a public/private research centres from other countries but the mentioned, may be a partner we are looking for.

4. Name and contact details:

Cosimo BRUNI (consultant engineer) and/or Prof. Mauro AGLIETTO
E-mail: bruni@dcci.unipi.it, aglaim@dcci.unipi.it

Tel. +39-050-2219269